This is a preliminary, unedited transcript. The statements within may be inaccurate, incomplete, or misattributed to the speaker. A link to the final, official transcript will be posted on the Committee's website as soon as it is available. 1 1 NEAL R. GROSS & CO., INC. 2 RPTS SALANDRO 3 HIF318180 4 5 RESPONSE AND RECOVERY TO ENVIRONMENTAL 6 7 CONCERNS FROM THE 2017 HURRICANE SEASON 8 TUESDAY, NOVEMBER 14, 2017 9 House of Representatives Subcommittee on Environment 10 11 Committee on Energy and Commerce 12 Washington, D.C. 13 14 15 16 The subcommittee met, pursuant to call, at 10:00 a.m., in Room 2123 Rayburn House Office Building, Hon. John Shimkus 17 18 [chairman of the subcommittee] presiding. 19 Members present: Representatives Shimkus, McKinley, Barton, 20 Murphy, Blackburn, Olson, Johnson, Flores, Hudson, Walberg, 21 Carter, Walden (ex officio), Tonko, Ruiz, Peters, Green, DeGette, 22 Dingell, Matsui, and Pallone (ex officio). **NEAL R. GROSS** COURT REPORTERS AND TRANSCRIBERS

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23 Staff present: Ray Baum, Staff Director; Mike Bloomquist, Deputy Staff Director; Allie Bury, Legislative Clerk, 24 25 Energy/Environment; Karen Christian, General Counsel; Jerry 26 Couri, Chief Environmental Advisor; Wyatt Ellertson, Research 27 Associate, Energy/Environment; Adam Fromm, Director of Outreach 28 and Coalitions; Theresa Gambo, Human Resources/Office Administrator; Jordan Haverly, Policy Coordinator, Environment; 29 A.T. Johnston, Senior Policy Advisor, Energy; Mary Martin, Deputy 30 31 Chief Counsel, Energy & Environment; Alex Miller, Video 32 Production Aide and Press Assistant; Tina Richards, Counsel, 33 Environment; Dan Schneider, Press Secretary; Hamlin Wade, Special 34 Advisor, External Affairs; Everett Winnick, Director of Information Technology; Andy Zach, Senior Professional Staff 35 36 Member, Environment; Jeff Carroll, Minority Staff Director; 37 Jacqueline Cohen, Minority Chief Environment Counsel; Caitlin 38 Haberman, Minority Professional Staff Member; Rick Kessler, 39 Minority Senior Advisor and Staff Director, Energy and 40 Environment; Jon Monger, Minority Counsel; Alexander Ratner, 41 Minority Policy Analyst; Andrew Souvall, Minority Director of 42 Communications, Outreach and Member Services; Tuley Wright, Minority Energy and Environment Policy Advisor; C.J. Young, 43 44 Minority Press Secretary; and Catherine Zander, Minority

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45 Environment Fellow.

46	Mr. Shimkus. We will ask staff to close the back door,
47	please, and ask the committee to now come to order, and I will
48	recognize myself for five minutes for an opening statement.
49	I want to thank all our witnesses for joining us today. We
50	are especially grateful for those of you who have traveled
51	significant distances to be with us today to share your stories
52	about the hurricanes that tore through our
53	country this fall and about the impact of those hurricanes on the
54	environment.
55	We know that many of you are still in the trenches of
56	dealing with the response and recovery efforts, so your
57	willingness to take the time to be here today does not go
58	unnoticed.
59	This fall, the continental United States and some United
60	States territories in the Caribbean experienced severe weather
61	from five hurricanes, including extensive damage due to landfall
62	from four storms.
63	Hurricane Harvey impacted Texas and Louisiana; Hurricane
64	Irma hit Florida, Georgia, Puerto Rico, and the U.S. Virgin
65	Islands; Hurricane Maria, again, hit Puerto Rico and the U.S.
66	Virgin Islands; and Tropical Storm Nate impacted Louisiana and
67	Mississippi.

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68 The Energy and Commerce Committee is conducting a series of hearings to look at the response and recovery efforts conducted 69 during this hurricane season so we can figure out what went well 70 71 and what we could we have done better, what we need to do is going 72 -- and what we need to do going forward. 73 We are also focused on what Congress can do to assist the 74 impacted communities as they work to get back on their feet. 75 Today we are focused on the environmental impacts of these 76 hurricanes and the response efforts. No two hurricanes are alike 77 and a storm's individual characteristics like the speed, intensity, and amount of precipitation, play a large role in the 78 79 extent of the storm's impact on natural resources and the 80 environment. 81 For example, as we will hear from several of our witnesses, 82 Hurricane Harvey may have significantly 83 impacted several Superfund sites in Houston because of the record 84 rainfall and flooding. 85 Likewise, in Puerto Rico, Hurricanes Irma and Maria 86 uncovered the intensified issues associated with aging and inefficient energy infrastructure, contaminated sites that are 87 rapidly multiplying, landfills that are already overflowing, and 88 89 possibly the most contaminated

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90 drinking water supply in the United States.

91 Residents across the island are still without power and 92 reliable source of -- and a reliable source of drinking water. 93 Many are drinking potentially contaminated water because water 94 purification systems have largely failed in the wake of the storm, 95 and in the municipality of Dorado citizens resorted to drinking 96 well water from Superfund sites.

97 Today, we will look at the response efforts by the 98 Environmental Protection Agency and the states for the impacted 99 communities. We will consider environmental issues in the 100 hurricane-impacted communities such as the availability of clean 101 drinking water, the potential for air

102 releases, the impact on Superfund sites and solid and hazardous 103 waste disposal facilities, and risk management and emergency 104 response plans.

We hope to hear from the affected EPA regional administrators about their efforts, what they accomplished, what remains to be done, and what can be done better in the future and how Congress can assist.

We will also hear from several private sector witnesses from academia as well as people who are serving in the boots-on-the ground roles in Texas and Puerto Rico, and people who can weigh

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112 in on what needs to be done regarding the drinking water systems 113 in the affected communities.

Again, I thank all our witnesses for being here. I hope the discussions will start today about the response and recovery efforts, the National Response Framework, and about whether statutory or other changes need to be made.

We will adjust the beginning as we continue to oversee and assist the federal and state governments as they carry out the response and recovery efforts for the communities impacted by the hurricanes.

122 And before I yield back my time, I am going to yield 30 seconds123 to Marsha Blackburn.

Mrs. Blackburn. Thank you, Mr. Chairman.

I want to welcome our witnesses. So pleased that everyone is here. There are so many different aspects to preventing, planning for, responding to the natural disasters, as the chairman has said, and these events are taking a toll on our communities, also on our nation.

And so much is involved in it -- today, the environmental aspects, but also looking at the health aspects and we know that they all have to work hand in hand.

133

124

I have got a piece of legislation, H.R. 1876, the Good

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134 Samaritan Health Professionals Act, that deals with that one 135 component of making certain that people are cared for 136 appropriately.

But we thank you for being here. We want to do what is right, we want to be helpful to the process, and we want to make certain that citizens are cared for in these situations.

140 And I yield back.

Mr. Shimkus. Gentlelady yields back her time to me, and before I turn to the ranking member I also want to mention that we will have sitting in with us Jenniffer Gonzalez, who is the resident commissioner of Puerto Rico. She's going to be sitting at the dais but per committee rule she can't ask questions. She can't make an opening statement. But when she comes I will make sure I recognize her.

148 With that, I yield back my time and yield five minutes to 149 the ranking member, Mr. Tonko, for five minutes.

Mr. Tonko. Thank you, Mr. Chair.

151 It is important that we are holding this hearing and I thank 152 you for doing that.

153 I was sad to hear the news that our friend, the former ranking 154 member of this subcommittee and the current ranking member of our 155 Health Subcommittee, Gene Green, will be retiring at the end of

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150

156 the 115th Congress.

157I know Gene was here a few moments ago. But I want to thank158him for his friendship and know that he will -- and I certainly159know that he will be fighting for disaster assistance for160Houstonians for the next 13 months. So we wish him well.

And I thank all of our witnesses for being here. It is great to have EPA witnesses join us on this very important topic. I hope Administrator Pruitt will appear before the subcommittee at some point in the near future as well.

I want to especially take this opportunity to welcome
Administrator Peter Lopez. Mr. Lopez and I have worked together
for many years. His former Assembly district overlapped a
portion of New York's 20th Congressional District.

169 Our constituents were hit hard by Hurricane Irene and 170 Tropical Storm Lee, and we well know that disasters don't 171 discriminate.

Peter, you are an outstanding public servant and I wish you well in your new role and it is great to have you at the witness table today.

175 Mother Nature does not discriminate. She doesn't care if 176 you are a Republican or a Democrat, and our government must be 177 ready to respond to help everyone get back on their feet.

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178 So I hope you can take the lessons learned over the years both in the response and recovery efforts and apply them to assist 179 180 our fellow Americans in need now. 181 We know the recovery effort will be long. But, sadly, in 182 Puerto Rico and the United States Virgin Islands the response 183 effort is still underway. 184 Far too many Americans continue to live without electricity 185 or safe drinking water and that is simply unacceptable. 186 On today's panels we will hear about the work done in the 187 aftermath of Hurricanes Harvey, Irma, and Maria, to address 188 environmental concerns. 189 EPA plays an important role in disaster response by assessing 190 and restoring water systems and Superfund sites, responding to 191 chemical and oil spills, and monitoring air quality. 192 I know there will be a wide variety of issues addressed today 193 including Superfund, chemical safety, air emissions, and debris 194 management. 195 I am particularly concerned about water systems, which we 196 know are often aging and in disrepair, even without the stress 197 of a disaster. There are legitimate questions as to whether state revolving 198 199 fund loans are the most appropriate vehicle to get communities **NEAL R. GROSS**

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Americans. These storms have made that clear. A robust EPA will make communities more resilient.

For example, today we will hear about the risks posed to Superfund sites by disasters and the work EPA has done to assess these sites both before and after storms.

But the best and perhaps only way to mitigate the risks to these sites is through actual remediation. Reducing funding to the Superfund program will not make cleanups happen any quicker and will not make sites less vulnerable to storms.

I would also be remiss if I did not mention climate change and the role EPA should be playing in addressing that threat. If we continue to ignore climate change, increasingly severe disasters will become the new normal and we can expect many more hearings like this one in the future.

I hope we can work together to ensure EPA has the resources necessary to support disaster response efforts and make our communities more resilient to disasters before they occur.

I look forward to hearing from the witnesses today and yieldback and, again, thank you, Mr. Chairman.

Mr. Shimkus. Gentleman yields back the time.
The chair now recognizes the chairman of the full committee,
Mr. Walden, for five minutes.

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244 The Chairman. I thank the gentleman.

Today marks the third hearing our committee has held to examine the response and recovery efforts for the hurricanes that ravaged our communities along the Gulf Coast and our island territories in the Caribbean.

And I would note for the committee in response to our concern about the situations especially in the island territories we will be having a congressional delegation -- a pretty high level limited seating capacity trip -- to Puerto Rico and the Virgin Islands coming up most likely early next month to have -- get a firsthand look at the situation. You will get more information as we go along.

Hurricane response and recovery deals with human tragedy. These storms didn't just damage property and displace residents. They delayed dreams and fundamentally altered the lives and fortunes of millions of Americans in ways big and small.

260 While we cannot undo the damage of these storms we can work 261 to ensure the federal government is diligently doing its job to 262 aid recovery and not making it harder to get that job done.

263 Public health risks typically associated with natural 264 disasters including drinking water contamination and the leeching 265 of hazardous waste are varied and include heightened risk of

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266 infectious disease, as you all know.

These risks can be particularly dangerous for vulnerable populations such as individuals with immuno suppressed and the elderly and infants, clearly.

270 Our job this morning is to better understand who in the 271 context of environmental concerns that bear on public policy is 272 engaging in the tough work to help speed recovery, what they are 273 doing or not doing to make hurricane victims lives better and the 274 challenges they face, when will something resembling normalcy 275 return and where are the resources coming from to make recovery 276 a reality and what private efforts can be leveraged. So it is 277 all the who, what, when, where, and why and how.

We also need to determine whether the federal presence is helping or hurting that recovery and, if so, how do we -- how do we change things that need to be changed.

Some of the areas we hope to cover today will have to go unaddressed for now. We had hoped to have a Puerto Rico solid waste official testify via video conference about the situation on the ground there.

Last week, she confirmed she would testify but then, unfortunately, power went down on the island and our ability to communicate with her was lost.

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288 We also hoped to hear from the Federal Emergency Management 289 Agency about its work leading response efforts and improving 290 funding for recovery activities. But they were unable to find 291 someone who could testify. Pretty remarkable.

We will continue working with FEMA to ensure these questions are answered so we can feel confident in both statutory authority and administrative practice, support rational decision making, and promote the needs on the ground.

That said, I want to welcome our witnesses today. Thank you for being here. Some of you have come great distances but each of you has important lessons for our committee to learn and we appreciate your participation.

I am confident that in the midst of all this bad news you will provide us some stories of dedication, innovation, gumption, acts of personal sacrifice, kindness, and courage.

These should inspire us to be equally fearless and committed in our work ahead. And in this committee and its broad jurisdiction we do roll up our sleeves and search for solutions to the various challenges that present themselves after a major disaster and we want to make sure the agencies under our jurisdiction are well prepared, responding appropriately, and that lives are improving as a result.

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310 If not, we want to know about it so that we can fix it. I 311 expect that this will be an excellent hearing for us to identify 312 vulnerabilities and assess what is needed to better prepare and 313 respond to this and future storms and disasters. 314 So thank you for being here. We look forward to working with 315 I know the former chairman of the committee, the vice vou. 316 chairman, has a special announcement he'd like to make now about 317 some of our folks in the audience who are with us today. 318 So with that, Mr. Chairman, I would yield to the gentleman 319 from Texas the remainder of my time, Mr. Barton. 320 Mr. Barton. Well, I thank you, Chairman Walden. Thank you, 321 Chairman Shimkus and Mr. Tonko, for holding this hearing. 322 I had the privilege way back when -- have been a White House 323 fellow under President Reagan back in 1981 and part of 1982 and 324 today I have the current class of White House fellows on their 325 visit to the Hill. 326 They are in the back lefthand corner. They are 14 of the 327 best and brightest young Americans. They work for Cabinet 328 secretaries or agency heads. They are full of vim and vinegar and I told them they are in the best committee in the House. 329 So we want to welcome our White House fellows and wish them the very 330 331 best in the years ahead.

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332 [Applause.]

17

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353	central and ongoing concern, and last week we saw a major setback
352	focused on energy infrastructure recovery efforts, which is a
351	Two weeks ago, the Subcommittee on Energy held a hearing
350	step up our efforts.
349	Virgin Islands it has been too little and too late and we must
348	been disorganized and in the instance of both Puerto Rico and the
347	The federal government's response to these hurricanes has
346	and unacceptable ways.
345	wreaked havoc and continue to threaten public health in serious
344	Environmental impacts from this season's hurricanes have
343	Mr. Pallone. Thank you, Mr. Chairman.
342	committee, Mr. Pallone.
341	The chair now recognizes the ranking member of the full
340	Mr. Shimkus. Gentleman yields back his time.
339	With that, I yield back, Mr. Chairman.
338	committee.
337	good men and good friends of mine. We welcome them to the
336	Shaw is head of the TCEQ down in Austin, Texas. They are both
335	regional administrator, Region 6, at EPA in Dallas, and Dr. Brian
334	Mr. Sam Coleman. Mr. Coleman is the acting administrator
333	I also want to welcome our two Texas witnesses, Dr. Shaw and
332	[Applause.]

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354 in the recovery of the electric grid in Puerto Rico when a repair 355 transmission line failed.

And today, more than two months after Hurricane Maria, more than half of the island is still without power and that is adversely affecting everything from health care to access to safe drinking water.

This lack of electricity puts lives at risk and must be addressed. Unfortunately, at this point, it does not appear that any agency within the federal government is standing up and taking full control of this effort.

The Army Corps and FEMA say the other is in charge and that is unacceptable. Someone needs to take the lead now.

This is also far from the only challenge facing communities in Texas, Florida, Puerto Rico, and the Virgin Islands.

368 First and foremost is the lack of safe drinking water. This
369 has been a problem in all of the areas affected by these hurricanes
370 and it continues to threaten lives.

The severity of these issues show the weaknesses in our drinking water infrastructure and how important it is for our drinking water systems to be more resilient to extreme weather and climate change.

375

Drinking water infrastructure has been a priority for this

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376 subcommittee this year and an issue that we have worked on 377 together, and several of the provisions included in the 378 committee's bipartisan drinking water bill could have helped 379 water systems prepare for these storms.

But I think we are learning that we need to do even more and that we need to provide more resources to these affected areas, and I hope that we can continue to work together in a bipartisan manner to address the concerns we hear about today.

384 Superfund sites also pose serious risks when natural 385 disasters strike. Several of these dangerous sites were damaged 386 during this hurricane season and we are still struggling to 387 understand the health impacts of that damage.

An extreme -- as extreme weather events become more frequent, it is even more important that we clean up Superfund sites quickly and thoroughly.

With greater funding for Superfund cleanups we might have avoided some of the damage we have seen and, again, I hope my Republican colleagues will join me in working to address this issue as well.

395 And these hurricanes have also led to significant air 396 pollution with real public health impacts. In Texas, we saw an 397 accidental release of benzene at the Valero refinery and a

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398 dangerous series of chemical fires at the Arkema plant. 399 In Puerto Rico and the Virgin Islands, we continue to see 400 dangerously high air emissions from diesel generators which could 401 worsen dramatically as debris management efforts being in 402 earnest.

And if we can't get the power turned back on soon, if we can't get safe drinking water out to our citizens, more Americans are going to die. This is a humanitarian crisis and we must do everything we can to fix it.

As Congress prepares the next emergency spending bill, we need to consider all these environmental concerns and do what is necessary to protect human health and the public welfare.

We can and should be doing more to increase access to safe drinking water, to secure and remediate Superfund sites, and to limit air pollution.

So I just want to thank the witnesses who traveled here today
from Texas, Puerto Rico, from the Virgin Islands and from Georgia,
and, Mr. Chairman, I look forward to hearing from you. I don't
know if any of our Democratic members want the time.

417 If not, I will yield back.

418 Mr. Shimkus. Gentleman yields back his time.

419

We want to thank all our witnesses for being here today and

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420 taking the time to testify before the subcommittee. 421 Today's witnesses will have an opportunity to give an opening 422 statement followed by a round of questions from the members. Of 423 course, your full statements are going to be submitted for the 424 record. 425 Our first witness panel for today's hearing will include Mr. 426 Peter Lopez, Regional Administration, Region 2, Environmental Protection Agency; Mr. Trey Glenn, Regional Administrator, Region 427

428 4, of the Environmental Protection Agency; Mr. Sam Coleman, Acting
429 Regional Administrator, Region 6, Environmental Protection
430 Agency; and Dr. Brian Shaw, chairman of the Texas Department of
431 Environmental Quality.

And with that, we will turn first to Mr. Lopez. You havefive minutes, sir.

434 Welcome.

This is a preliminary, unedited transcript. The statements within may be inaccurate, incomplete, or misattributed to the speaker. A link to the final, official transcript will be posted on the Committee's website as soon as it is available. 22 STATEMENTS OF PETER LOPEZ, REGIONAL ADMINISTRATOR, U.S.

436 ENVIRONMENTAL PROTECTION AGENCY, REGION 2; TREY GLENN, REGIONAL
437 ADMINISTRATOR, U.S. ENVIRONMENTAL PROTECTION AGENCY, REGION 4;
438 SAM COLEMAN, ACTING REGIONAL ADMINISTRATOR, U.S. ENVIRONMENTAL
439 PROTECTION AGENCY, REGION 6; DR. BRYAN SHAW, CHAIRMAN, TEXAS
440 DEPARTMENT OF ENVIRONMENTAL QUALITY

441

435

442 STATEMENT OF MR. LOPEZ

Mr. Lopez. Thank you, Chairman Shimkus and Chairman Walden,
Ranking Members Tonko and Pallone, and fellow Energy and Commerce
Committee members.

I am Pete Lopez. I am the regional administrator for Region
2, which includes all of New York, New Jersey, the Virgin Islands,
and eight federally recognized Indian nations.

It is a privilege to join you today on this important conversation and my testimony today, please understand, is a snapshot of what's happening as a result of Hurricanes Irma and Maria.

453 Please understand that we are very much in an emergency 454 response mode and that the testimony we offer today is subject 455 to change on a daily basis. So we are doing our best here. 456 Just to preface, in my years as a member of the state

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457 legislature, I was intensely involved in a response very similar458 to what's happened in the Caribbean.

So in upstate New York in 2011, we were ravaged by Hurricane
Irene and Tropical Storm Lee. Mr. Tonko and I were partners there
working on this issue.

In this instance, my parents were homeless. My family was homeless. We had eight feet of water in my village. A similar situation with infrastructure, communications, power grids. The socioeconomic conditions very much the same.

If you understand New York geography, northern Appalachia. So what we found -- and this is a critical issue for the committee and for the administration -- is that the more disadvantaged the community, the more painful and slow the recovery.

470 So I just -- I can't understate that message and I just wanted 471 to bring it to the committee's conscious thought.

472 Recently, I had a chance to travel to Puerto Rico and it was 473 with my colleague, Deputy McCabe, who is with me today, and I was 474 struck by the incredible destruction, and I have to tell you that 475 the sights, the sounds, the smells were all too familiar.

And as with Irene and Lee, I also have family on the islands in the Arecibo and Camuy area. Lopez family corderos are there as well and we are very concerned about their safety.

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The focus of the trip was not just to be on the ground but to connect. We met with leaders. We met with leaders of the territories and the Commonwealth, local officials, and our main goal was to connect with them, to identify problems and issues and really help them problem solve.

So we are very committed and I have to say the experience was both sobering but also galvanizing. I found that my colleagues on the ground are very passionate about the work they are doing and treat individuals as subjects, not objects. We are concerned about individual families, communities, and the integrity of the entire population.

As was noted by some of the introductory remarks, a major
challenges remains with the power grid and here, as you can
imagine, virtually everything relies on electricity.

493 So whether it is pollution controls at Superfund sites,
494 drinking water and wastewater system operation, all of those
495 things are challenged.

496Our response has been working with FEMA and Army Corps to497place strategically-placed generators at key locations. The498challenge, of course, that it provides an alternate power source499but the reliability in the long term is at risk here.

500

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So they require fuel and even the generators themselves are

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501 subject to mechanical failure. So as we try to run around the 502 island we are challenged with the electricity issue.

Just want to say in their defense for both FEMA and Army Corps, their job is unprecedented, and I don't want to draw too much of a parallel to Europe after World War II where we talk about the Marshall Plan and off script a little, but the challenges on the island are unique.

508 So in defense of our colleagues with FEMA and Army Corps, 509 their job is extraordinary.

510 EPA has about 325 employees and contractors on the ground 511 and in the Virgin Islands. We hope to have that number increased 512 to about 400 in December.

513 In your testimony you'll see greater detail on the status 514 of power plants -- excuse me, drinking water facilities, hazardous 515 waste facilities, wastewater treatment, Superfund sites,

516 hazardous debris, comingled debris, and sunken vessels. You'll 517 see all that in front of you in your testimony.

Just as a quick note, we made great progress. We still face a number of changes -- challenges. The power -- outside of the power we have been dealing with waste -- medical waste that has been building up due to logistical limitations.

522

Many roads are still impassable and, as you know, weather

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523 conditions have further compromised with mudslides and flooding.
524 That includes area flooding, chronic flooding, as well as
525 destruction to other property.
526 So accessibility on the island is an ongoing challenge.

527 Humanitarian aid -- we have stepped out of our comfort zone and 528 where we are the first responders we are bringing additional 529 humanitarian aid with our staff as we go into the mountainous 530 terrain.

531 So looking to the future, quickly, we know there are unique 532 challenges. The issue of backup power, we heard reference to what 533 do we do for the future. Having backup power and supplies on the 534 island is critical.

Positioning those supplies in key areas, particularly with storms advancing, would be very helpful. And, again, we know there are opportunities for improvement always but we welcome the committee's engagement and thank you for this opportunity to be here with you.

540 Thank you so much, Chairman.

541 [The prepared statement of Mr. Lopez follows:]

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544 Mr. Shimkus. Gentleman's time has expired. 545 And let me for -- just for the record ask the regional 546 administrators to state where the headquarters is and remind our 547 colleagues what states that they represent. We did this in the 548 Energy Sub and I think that is just helpful to keep that all in 549 perspective. 550 So with that, so Mr. Lopez, what are the states and, 551 obviously, protectorates that you cover? 552 Mr. Lopez. Yes, Chairman. 553 So New Jersey, New York, Puerto Rico, Virgin Islands, and 554 eight recognized Indian nations -- tribes and we are headquartered 555 at -- in Broadway, New York City -- 290 Broadway. 556 Mr. Shimkus. So let me now turn to Mr. Glenn, Region 4 557 administrator.

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558 STATEMENT OF MR. GLENN

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560 Good morning. Mr. Chairman and esteemed Mr. Glenn. 561 members of this committee, I am Trey Glenn, regional administrator 562 for EPA Region 4, which comprises eight southeastern states. 563 That is Alabama, Florida, Georgia, Mississippi, Tennessee, 564 North Carolina, South Carolina, and Kentucky, and we also have 565 six federally-recognized tribes. 566 Thank you for the opportunity to appear before you today to 567 discuss the impacts of Hurricane Irma and EPA's response and

568 recovery efforts and to continue the productive discussion that 569 we had last month with the subcommittee.

570 I have been on the job a little over two months now and I 571 can honestly say that I am in awe of the caliber and expertise 572 and dedication of the regional staff.

573 These environmental professionals work each day to meet 574 EPA's mission of protecting human health and the environment and 575 this commitment was demonstrated consistently throughout the 576 EPA's response to the devastating hurricanes we experienced this 577 past season.

578 The 2017 hurricane season was indeed unprecedented in the 579 number and intensity of major storms that impacted the United

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580 States and the U.S. territories. The damage from these hurricanes is still being assessed. The recovery will continue 581 582 for the foreseeable future. EPA Region 4 is fully engaged in a number of response and 583 584 recovery activities and we are working in close coordination with 585 our federal, state, local, and tribal partners as well as 586 businesses and local communities. 587 The core of our emergency response program in Region 4 588 consists of 28 on-the-scene coordinators and 57 additional staff 589 within a response support corps. 590 Prior to landfall of these storms, I personally reached out 591 to the environmental directors of the four states that were in 592 the potential path of this storm to inform them of Region 4's 593 ability to assist if needed. 594 We also reached out to our tribal partners that might be 595 impacted by the storm and Florida was the only state that requested 596 EPA assistance relative to Hurricane Irma. 597 We deployed our Region 4 on-scene coordinator to provide 598 direct coordination and planning support to the state. We also 599 provided a liaison to the FEMA regional response coordination center and deployed EPA regional senior leaders to south Florida 600 and myself to Tallahassee. 601 **NEAL R. GROSS** COURT REPORTERS AND TRANSCRIBERS

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602 We worked closely with EPA headquarters to issue fuel waivers 603 and no-action assurances to assist in not only the preparation 604 but also the response activities for these great storms. 605 We positioned 12 field hazard assessment teams for 606 deployment when and where needed. These teams were deployed at 607 Florida's request to provide oil and hazardous substance response 608 support. We further provided support to the state for orphan 609 container assessment and recovery, vessel pollution response and 610 mitigation, and debris management technical support. 611 Region 4 also assisted with water and wastewater system 612 technical support. We coordinated with the state to monitor the 613 status of more than 1,600 community drinking water systems and 614 over 2,000 wastewater systems. 615 Concurrently, Florida also requested assistance in 616 contacting small noncommunity drinking water systems such as 617 schools and restaurants and the water division completed over 618 1,200 call-down assessments of those facilities. 619 Our hazardous assessment team performed field assessments 620 at more than 200 chemical and oil storage facilities identified 621 as priorities. 622 We conducted reconnaissance for pollution incidents and 623 orphan containers and there were no significant storm-related

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624 hazardous substance or oil pollution incidents in Region 4. 62.5 We also assisted with orphan container and vessel recovery 626 in the Florida Keys and deployed personnel to provide support to 627 the state and assessment of disaster debris management sites. 628 Our operation in the Florida Keys continues as we speak. We 629 have collected more than 700 orphan containers that are stored in a secure staging area for waste characterization and recycling 630 631 or disposal. 632 Our EPA team has recovered oil and hazardous materials for 633 more than 65 sunken or grounded vessels and moved these craft to 634 land-based staging areas where they were transferred to the 635 custody of the Florida Fish & Wildlife Commission. 636 Prior to landfall, we assessed vulnerabilities at all 637 Superfund sites in Florida. We also deployed six teams to conduct 638 boots-on-the-ground assessments of all national priority list 639 sites and as a further measure we also deployed teams to assess 640 these NPL sites in Alabama, Georgia, and South Carolina, and all 641 we found is that sites experienced very little impact from 642 Hurricane Irma. 643 Post-landfall we worked with our state partners to ascertain 644 the status of oil storage facilities required to maintain facility

response plans as well as chemical facilities required to maintain

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646 risk management plans.

647 Overall, there were very minimal reports of oil and hazardous
648 substance spills that could be attributed to the storm and only
649 one of the RMP facilities contacted reported a hazardous substance
650 release, the source of which was very quickly mitigated.

Moving forward, we continue to meet mission assignments under the response phase and have initiated recovery with FEMA and other federal partners under the national disaster recovery framework, and under this framework EPA supports federal partners primarily on community planning and capacity building, infrastructure systems and recovery and natural and cultural resources.

We are excited to have the opportunity to work with our federal, state, tribal, and local partners on this very innovative initiative.

Again, I thank you for the opportunity to be here and share with you what I consider to be a great example of cooperative federalism to assure and restore public safety and recovery from disaster.

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I look forward to answering your questions that you have. [The prepared statement of Mr. Glenn follows:]

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669 Mr. Shimkus. The gentleman yields back his time.
670 The chair now recognizes Mr. Sam Coleman, acting regional
671 administrator of Region 6.
672 Sir, you are recognized.

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673 STATEMENT OF MR. COLEMAN

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675 Mr. Coleman. Good morning, Mr. Chairman and fellow 676 committee members. I am Sam Coleman, acting regional 677 administrator for EPA Region 6, which covers Texas, New Mexico, 678 Oklahoma, Arkansas, Louisiana, and their 66 federally-recognized tribes. We are headquartered in Dallas, Texas in downtown. 679 680 Thank you for the privilege of joining you here today for 681 this very important conversation. I am here to speak directly 682 about EPA's response to the devastating impacts of Hurricane

Harvey in Region 6 and our associated response activities.

As we have seen in the past three months, every disaster presents unique challenges. Hurricane Harvey hit Corpus Christi as a category four hurricane, then lingered over the Texas Gulf Coast, dropping more than 50 inches of rain in Harris and the surrounding counties, and this impacted over 7 million people. EPA worked with Texas and local officials to assess more than 2,200 drinking water systems and more the 1,700 wastewater

We retrieved over 950 loose containers and, according to FEMA, we worked with the state to make sure that over 20 million cubic yards so far of debris has been properly disposed of.

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systems.

695 At one point, the Texas commissioner of environmental quality had over 500 people working on the response and EPA had 696 697 over 250 people assisting the state in those response activities. 698 One of the most noteworthy aspects of the response to 699 Hurricane Harvey was the positive and collaborative relationship 700 between EPA and the state of Texas. 701 Because we worked very closely with the state agencies and 702 the governor's office, our collective strength of our efforts were 703 greater than the sum. 704 By augmenting state resources where needed and providing some specialized monitoring capabilities, together we were able 705 706 to address many challenges prevented by Hurricane Harvey in a 707 timely manner. 708 After my 29 years of working at EPA and experiencing events 709 following Hurricane Katrina and the Deepwater Horizon oil spill, 710 I have learned a few key lessons regarding the response activities 711 to assure success. 712 I am going to go over a few of those. First is exercises 713 -- our federal agency's plan for such catastrophic events by 714 conducting exercises to prepare. It is very apparent that these practices lead us to discover our weaknesses and to have time to 715 716 correct those efficiencies before the real emergency occurs. **NEAL R. GROSS** COURT REPORTERS AND TRANSCRIBERS

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717 It is difficult to prepare for such an event as devastating 718 as Hurricane Harvey. However, the state of Texas was as well 719 prepared as I've seen and integrations of our organizations was 720 exceptional.

Second is prior coordination. Because EPA has open communication and a longstanding cooperative relationship with our state counterparts and other emergency response agencies, it clears the path for success that benefits the citizens that are impacted by a disaster.

When a storm is imminent, EPA begins the coordination efforts before landfall. As soon as the storm passes, we have teams that are standing by to begin the assessment of drinking water and wastewater systems to begin evaluating the environmental integrity of impacted businesses, to begin investigating citizen complaints, and to respond to any reported spills or other damaged areas as well as sharing key information with the public.

Next is the experienced staff. An effective response
infrastructure includes experienced first responders who are able
to address unforeseen circumstances both swiftly and effectively.
Staff development during the preplanning time is of grave
importance and should not be underestimated. Experienced
responders are the first boots on the ground and they provide the

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739 most efficient assistance to communities.

And then, finally, is having the right equipment. EPA employed assets during Hurricane Harvey response to assist the responders that were not available elsewhere. EPA often responds to reports of environmental impacts from air emissions or from other plumes that may be dangerous to a community.

745 In response to these complaints and odors and fumes during
746 Hurricane Harvey, EPA deployed a TAGA bus. TAGA stands for the
747 trace atmospheric gas analyzer.

748 This is a mobile pollution detection vehicle that is able 749 to provide air quality results quickly by collecting constant 750 real-time data of outdoor air quality.

751 The TAGA bus monitored ambient air in the vicinity of 752 approximately 25 facilities and adjacent neighborhoods and during 753 that time they covered over 640 miles going back and forth in those 754 communities.

The results of this we were able to detect actionable emissions to work -- then to work with those affected facilities and to work with the state to make sure that they were properly addressed.

759 There was also widespread coverage of the fires at the Arkema760 facility in Crosby, Texas. That facility housed volatile

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761 chemicals that required refrigeration to prevent them from762 self-igniting.

When the facility lost power, the conditions deteriorated at the facility, which required an evacuation of the facility and surrounding areas. Ultimately, there was a series of fires that were spontaneous combustion from those materials stored at the site.

For a provide the ASPECT aircraft for air sampling above the facility and in the nearby surrounding areas. ASPECT stands for the airborne spectral photometric environmental collection technology.

And I know that is a mouthful but, basically, it is an airplane that EPA rents that is packed full of EPA-owned monitoring equipment so that we can look into the plume to determine if there are harmful levels of chemicals or if there is any danger either downwind or in the communities surrounding the plant.

The ASPECT flew 28 flights over 112 hours -- 28 flights and over 112 hours, covering miles of pipeline. We looked at 134 risk management facilities and 456 drinking water plants and also 105 wastewater facilities in support of the Hurricane Harvey response.

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783 The data was invaluable and assessed the risk quickly in 784 responding appropriately to the emergency and the technology was not available through any other parties involved. 785 786 The third asset that we used was a mobile laboratory called 787 PHILIS. PHILIS stands for the portable high through-put 788 integrated laboratory identification system. 789 The PHILIS lab is a mobile laboratory that we deployed in 790 Houston that allowed us to get 48-hour turnaround on volatile and 791 semi-volatile samples. 792 This allowed us to quickly assess the conditions at all of 793 the Superfund sites and also any other samples that we needed a 794 quick turnaround. If EPA did not have access to these tools, our response and 795 796 the dissemination of information to the public would not have been 797 as informative and robust. I believe that these EPA assets are 798 critical to effective preparedness and response. 799 EPA remains activated as an agency continues to respond to 800 Hurricanes Maria and Irma. The agency taps resources from our 801 sister regions during these times of great need. 802 I have seen the agency continue to grow in our capabilities, 803 learn from each response and apply lessons learned as we face new 804 challenges.

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805	We are able to make more data available to the public. For
806	example, we use story boards as we presented this information to
807	the public so that they could understand what each sample meant
808	and how it impacted them personally.
809	EPA will continue to develop more methods and improve our
810	responses by working with our state, local, and other federal
811	agency partners.
812	While the response has its own unique challenges, we want
813	to remain flexible to address the individual needs. I am very
814	proud of the EPA and the other responders when called to duty in
815	these times of great need.
816	I am happy to answer any questions about the great work we've
817	done and look forward to continuing to serve.
818	Thank you.
819	[The prepared statement of Mr. Coleman follows:]
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822 Mr. Shimkus. Thank you.

Welcome.

823 Now, last but not least is Dr. Shaw, chairman of the Texas

824 Department of Environmental Quality. You have five minutes, sir.

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826 STATEMENT OF MR. SHAW

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828 Mr. Shaw. Good morning. Thank you, Chairman Shimkus, 829 Chairman Walden, and Ranking Member Tonko and members of the 830 committee. It is a pleasure to be here.

For the record, my name is Bryan Shaw. I am the chairman of the Texas Commission on Environmental Quality and I am happy to discuss our response in recovery efforts related to Hurricane Harvey.

First, my agency's primary mission is to protect the public health and natural resources by ensuring that the air and water and waste are clean and disposed of safely.

838 This is a critical part of what we work to is fulfilling that 839 mission in the aftermath of a disaster such as Hurricane Harvey.

While we recognize the many challenges that we face and the severity of the -- of the storm that we had, the key to making the response as successful as it was you have heard demonstrated through the cooperative nature that we have experienced both with our federal allies as well as other state and federal agencies in responding to the hurricane.

As was mentioned by Mr. Coleman, TCEQ deployed about 500 847 people dedicated to the Hurricane Harvey response. The 250 or

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848 so folks that worked from EPA to work hand in hand with us were 849 critical to addressing one of the major issues we face and that 850 is communication.

851 At the time that the storm rolls through it is very 852 challenging to have the adequate communication and get 853 information in a timely manner because, quite frankly, the local 854 elected officials aren't always as prepared for a hurricane as 855 we might want them to be because typically they are spaced out 856 far enough that this is, in most cases, their first experience 857 at dealing with a hurricane and when you have one of this magnitude 858 it becomes even more critical in having a cooperative relationship 859 between the state and federal agencies that respond.

860 It is critical both to providing that information as well 861 as reassuring those local officials where help is and help is on 862 the way.

This cooperation, I think, clearly demonstrates how well state and federal agencies can work together. We tend to work very well with EPA in previous natural disaster response but never better than we worked in this response and I think considering the unprecedented nature of the severity of the storm and, quite frankly, the fact that this storm sort of parked over Texas and dumped rain continually, it is -- if you look at the tragic losses

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we had but in hindsight considering the severity of the storm, the state fared very well and that is attributable to the prior planning, it is attributable to the cooperative relationship we had amongst our different state agencies and, quite frankly, it is attributable to the resiliency and the good neighbors that we have in our state of Texas that we are blessed with that come to the aid of their -- of their neighbor in time of crisis.

I think this fits very well into the Cooperative Federalism 2.0 effort that is underway and I think that is -- I applaud this committee for looking at finding ways to be able to ensure that the state and federal agencies are working together.

The Environmental Council of the States has a process underway called Cooperative Federalism 2.0 which is trying to incentivize and encourage us moving to that relationship that was demonstrated, and so I am very much encouraged by that.

I will talk briefly because I know we were running short on time from the standpoint of my allocated time but I want to touch on some of the issues that are ongoing.

Obviously, debris management is one of those issues that continues to be a challenge. This is often what I refer to as the slow tragedy associated with an event like this.

You see some of that initially when you see the debris from

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892 what is taken out through wind, the tornadoes associated with a 893 hurricane, as well as the surge -- the storm surge.

But oftentimes the flood damage you don't see initially because those houses seem to be unaffected until you start seeing the residents return back and removing the debris from inside of the houses, getting the drywall out, moving it to the curbs and to the temporary sites.

And so it is critical that we move quickly to be able to help that happen because having those materials remain indoors leads to mold and other types of biological contamination that can be poor for health as well as making it very difficult for communities to rebuild.

We move it quickly to the curb but you need to move it from there quickly because you have vector issues -- mice, rats, other things -- that can be there -- mosquitoes breeding. And so we want to make sure that we have that process moving along.

908And then from the temporary site getting it into a landfill909and making sure that we are providing for ultimately,910environmental and health protections become very critical.911We are working probably most of our time at this point dealing912with the ongoing tragedies and needs related to disposing of913debris, working to quickly identify the temporary sites, ensure

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914 that we are working with those local officials not just to make sure that all the bureaucratic I's are dotted and T's are crossed 915 916 but in making sure that we are both safe, protective, and ensuring 917 that we don't have issues that will prevent them from getting 918 reimbursement from those recovery efforts because those 919 communities have already been hard hit from the loss of their tax base, their houses, and their businesses. And so we work very 920 921 diligently to ensure that moves quickly.

So we are continuing to have success there but we will continue to have those calls that come as judges and mayors realize that the removal process is too slow and we work and continue to provide resources to help them both from a technical standpoint as well as, when we can, providing physical labor and the expertise on the ground.

Air monitoring -- we have heard some discussion from Mr. Coleman so I won't go into a lot of detail other than to point out that we have a plan in place, our -- I call it our common sense approach where we make sure that prior to a storm's landfall we take down equipment that is going to likely be damaged or destroyed in a hurricane and then very quickly bring it back up.

That takes some time, especially when, in many cases, we had to wait until we had power restored to an area to be able to get

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936 air monitors in place.

We relied very heavily on our federal partners to be able
to do sampling as we had case by case needs as well as deploying
monitors that we could bring in to assess plumes and other issues
associated with potential emissions from facilities.

I will quickly wrap with drinking water, wastewater issues. As was mentioned, we had a couple thousand drinking water systems that were in the path of the storm. We still have two of those that are inoperable. They are small systems and arrangements have been made to allow for them to have water brought in so those residents are getting their needs served.

But we still have 24 systems that are under boil water notice, some of that because of damage to the system and some of that because, frankly, they're still adjusting to the source water changes associated with the storm.

951 Wastewater and sewage, we still have three of those systems 952 that are inoperable compared to the 40 at the height of the 953 process. So it does take a good bit of time.

I will close with talking about our hazmat, and we do work cooperatively but we take the lead with regard to identifying containers that may be washed away or moved away during the storm. And to date, we've had about almost 1,200 of those containers

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958 that have been located and properly disposed of as well as dealing 959 with the spills associated with the storm.

960 So you can see that there is a broad range of issues that 961 have to be addressed and working cooperatively allows us the best 962 chance of being most responsive to our citizens.

And with that, I will thank you for the opportunity to visit with you about this issue. We do have many resources available on our website and I am happy to provide those web links as needed. Those are very helpful both in informing the public as well as elected officials about resources that are available to them. I am happy to answer questions. Thank you, sir.

[The prepared statement of Mr. Shaw follows:]

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Mr. Shimkus. The gentleman's time is expired.
And before I start with the opening question, I want to recognize Jenniffer Gonzalez, the resident commissioner from

975 Puerto Rico.

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976 She's here at a good time to hear the opening statements but 977 also, as I go to my first round of questioning, the first one is 978 going to go to Mr. Lopez.

979 So I recognize myself for five minutes for questions. Mr. 980 Lopez, there have been a number of press reports about people who 981 are without clean drinking water, drinking from a well on a 982 Superfund site in Dorado, Puerto Rico.

983 Can you explain the situation there and whether it has been 984 resolved?

985 Mr. Lopez. Certainly, Chairman, and thank you for that 986 question.

987 So, again, of course, there was a lot of attention to early 988 concerns of the individuals drinking from the wells. Those 989 reports were incorrect.

So, in essence, there has been some understandable confusion
with the way the infrastructure is designed and operable in that
area.

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So wells in question are sealed. They are not accessible.

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994 Water has been made accessible through spigots at those well sites 995 that are part of the super aquifer tied to process infrastructure. 996 When we first learned about the concern, our first response, 997 of course, was humanitarian and we brought bottled water and had 998 Army Corps bring water buffaloes to the sites because the main 999 concern was we want to protect human health and safety, take them 1000 away from sites where we had any question, and make sure people 1001 had potable water. 1002 From there we engaged in immediate sampling and from the 1003 results of the sampling we found chlorine residual from those 1004 spigots. Certainly, wells are not prone to have chlorine in them 1005 inherently and so our initial deduction was that that was treated 1006 water. We have gone forward to do additional sampling and are doing 1007 full spectrum analysis. Thus far, our results reaffirm and 1008 process also reaffirm that along with the Department of Health 1009 1010 from Puerto Rico that that is part of process water supply. They 1011 are not from the contaminated wells. 1012 Mr. Shimkus. Are there any other places on the island where 1013 this issue may be an issue? 1014 Mr. Lopez. Not to our knowledge and, again, the concern --1015 and just to highlight, Chairman, the concern with the Superfund **NEAL R. GROSS**

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site -- and this is part of the challenges -- Superfund site

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1017 doesn't mean that every water source within the designated area 1018 is in question. What it means in this case with the Dorado site we identified 1019 1020 a target area -- we, at EPA -- just to monitor. So where sites 1021 were known to have contamination those sites have been locked 1022 Other sites we continue to test -- I say we, the Puerto down. 1023 Rico Department of Health -- PRASA -- on a regular basis to make 1024 sure that those supplies remain potable and within Safe Drinking 1025 Water Act thresholds. 1026 Mr. Shimkus. Was the Puerto Rican water utility the entity 1027 distributing water at the Dorado site? 1028 Mr. Lopez. The Puerto Rico Well Authority -- PRASA -- was 1029 not literally distributing the water. The areas in question were 1030 fenced and signed. There are spigots there and the sites were 1031 entered into and PRASA was not knowingly willingly distributing. 1032 But we -- again, our main concern there was to make sure that 1033 the water was safe and that is why we brought temporary water until 1034 we could ascertain the status of the true supply. 1035 Mr. Shimkus. So in your written statement, Mr. Lopez, when 1036 you -- in your written testimony you note that 20 of the 115 1037 drinking water plants are out of -- out of service. What is --**NEAL R. GROSS** COURT REPORTERS AND TRANSCRIBERS 1323 RHODE ISLAND AVE., N.W. WASHINGTON, D.C. 20005-3701 (202) 234-4433 www.nealrgross.com

1038 what are you doing to remedy the situation about people not having 1039 access to potable water in Puerto Rico?

1040 Mr. Lopez. Well, our challenge, of course, Chairman, is we 1041 assess. So we determine where there are deficiencies, whether 1042 it be collapse of trunk sewers, whether power be out, and then 1043 we work with Army Corps, which is mission assigned to work with 1044 PRASA to make the repairs.

1045 So funding is provided through the Stafford Act to help make 1046 necessary improvements. We continue to help provide advisories 1047 to the population and, again, we are working with our partners 1048 to make necessary repairs as quickly as possible.

1049 Mr. Shimkus. Let me, in my last minute and a half, turn to 1050 Mr. Shaw, or Dr. Shaw. My sister-in-law move out of Houston right 1051 before the storm.

1052But she has a lot of friends back there and she visited over1053the weekend and it raises the point about waste management that1054you were referring to.

1055On her return she showed a picture of her friend's house.1056About two and a half to three feet of drywall had been ripped out.1057I mean, still, the house will be -- take a year probably or I don't1058know how long to get it. But so that -- so when we see storm1059damage, which we have in tornado season, you see the initial pile

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1060 of refuse on the streets. But then over time you're going to see 1061 the refuse from being torn out. They're probably going to be in 1062 dumpsters and they're going to be hauled someplace. So the question is, is there sufficient land -- landfill 1063 1064 capacity with this hurricane debris? 1065 Mr. Shaw. The answer -- the short answer is yes. And you 1066 are right, part of that process is moving from the house to the 1067 Usually there is about three passes of removing from the curb. 1068 curb as well. So it is sort of a cyclical process. 1069 We looked at it very closely and initially estimates were 1070 quite high what the debris might be. 1071 The issue is we have enough capacity in those landfills in 1072 the areas. The real challenges have been twofold. One, does it 1073 reduce the length of life of that landfill, which is obvious. 1074 The second part of that is sometimes those landfills, because they build them out in cells, they may not have a cell that is 1075 1076 built out ready to receive all that debris, and so in some cases they may have to exceed their permitted height and we have a 1077 1078 process whereby they can apply to make that happen on an emergency 1079 basis. 1080 What will happen is following the passing of the storm they

1081

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will either have to come in and remove that extra cap or they will

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1104 do not always remain operable. So access is an issue. We have 1105 had plants that, because of mudslides or rain, river action, we 1106 have had them -- access to them denied.

1107 So at this point, 85 percent of the PRASA system users have 1108 water and PRASA represents about 97 percent of all the water supply 1109 to the island.

1110 There are additional water supply sources -- non-PRASA 1111 systems, very small sources. There are very -- there are about 1112 237 independent water treatment systems throughout the mountains.

We are working with mission assignment, with nongovernmental operations to do work there. In some of those cases we are, again, trying to get those systems back and running. But power, in some case physical damage, in some case access. We also have debris issues. In some case, intakes are clogged with debris and that has been a challenge for some of our operators.

1119 Mr. Tonko. And just what percent or whatever expression we 1120 can get from you is concerning electricity failure?

1121 Mr. Lopez. Oh, my gosh, I have -- I have some detail. So 1122 I can go through -- I have -- I have a number. I will just run 1123 through -- I have a list. Arecibo alternate power unit out of 1124 service. Esperanza, alternate power service out of Muñiz. We 1125 have guite a few. Most of it is power units.

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1126	We do have waterline pipes broken. We do have some cases
1127	of water supply raw water supply clogged. But much of it is
1128	power and, again, we are using generators and other means to try
1129	to activate those systems. Some systems were flooded and they
1130	had to be reassessed even before power could be fully restored.
1131	Mr. Tonko. And you had mentioned the infrastructure
1132	failure. What about source water contamination as an issue? Is
1133	that
1134	Mr. Lopez. We are of course, we are very concerned about
1135	it and I used a phrase Ms. Colon would understand, agua es vida
1136	water is life.
1137	So whether it be water for drinking, water for bathing, water
1138	for washing your clothes, water for any purpose, we are all very
1139	concerned.
1140	We have been in terms of the contamination of water our
1141	role has been, first, direct resources to restore water and
1142	systems to be operable. That's the main goal.
1143	With individual homes and families we are working with the
1144	CDC, Puerto Rico Department of Health, and others to provide
1145	advisories. So boiled water advisories are in effect, have been
1146	in effect.
1147	We are also warning people to be to avoid using these

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1148 supplies for potable purposes. We have worked with the CDC to 1149 provide alternate disinfection where possible -- chlorine tablets 1150 and other alternate disinfection. So we are taking --1151 Mr. Tonko. Oh, go ahead. 1152 Mr. Lopez. As broadly as we can we are trying to respond. 1153 But the challenge is we can't control individual human behavior 1154 and people need water. So our main goal is get water to them as 1155 quickly as we can -- potable. 1156 Mr. Tonko. Peter, you had mentioned PRASA and with those 1157 independent systems -- those beyond PRASA -- are they continuing 1158 to struggle to provide safe drinking water? 1159 They are. We are working with them and, again, Mr. Lopez. 1160 it is case by case. Just mind you that a number of the systems are mountainous and access to them continues to be an issue. 1161 1162 So we are working on assignment to get to them. But at this 1163 point, we had -- we have assessed -- bear with me a second. Just 1164 going to pull up my notes here on non-PRASA. There are 237 1165 independent community systems and we have assessed them all. But 1166 getting them all operational is a challenge. 1167 Mr. Tonko. And of those 237, which are operating? Mr. Lopez. Let me -- bear with me just a second. About 170 1168 1169 of the 237 are operational.

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1170 Mr. Tonko. Okay. Thank you.

1171And is EPA testing water quality at small water systems?1172Mr. Lopez. We do. Well, the Department of Health -- let1173me say this -- the Department of Health for Puerto Rico is the1174authority. So our sampling is really not something we do as a1175norm.

We did sample in the Dorado case where there were concerns about drinking from contaminated wells and there we wanted to do rear guard action for the Puerto Rico Department of Health.

1179 But Puerto Rico Department of Health maintains primacy with 1180 those -- with those sites.

1181 Mr. Tonko. Thank you.

1182 Mr. Chair, I yield back.

1183 Mr. Shimkus. Gentleman yields back his time.

1184 Chair now recognizes the gentleman -- the chairman of the 1185 full committee, Mr. Walden, for five minutes.

1186The Chairman. And I thank the chairman and I thank, again,1187our witnesses for your testimony on all these issues our citizens1188face.

I know, Mr. Lopez, you've talked a lot about the drinking water and we know when the power goes off the pumps don't run and purification doesn't work unless you get generators and all that.

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1192 But I would like to move beyond that and ask about the ability 1193 to clean up Superfund sites. How is that being impacted along 1194 the way here? 1195 Mr. Lopez. So, Chairman, the Superfund sites were assessed 1196 -- they have been assessed routinely. They were assessed before 1197 the storm events -- Irma. They were assessed after Irma. They 1198 have been assessed after Maria. 1199 And much of those sites really are groundwater 1200 contamination. So they were not really moved by the storm. The 1201 issue for the storm and where there was damage were in terms of 1202 fencing and also pump and treat systems, which required power. 1203 So in those cases, we worked to restore those functions. That's what we've been working to do and the -- in terms of damage 1204 1205 1206 The Chairman. How --1207 Mr. Lopez. I am sorry, sir. 1208 How far along are you on that -- the Superfund The Chairman. 1209 site protection? 1210 Mr. Lopez. To my -- to my knowledge, that is -- things are 1211 locked down. 1212 The Chairman. Okay. 1213 Mr. Lopez. So if we've seen additional concerns -- for NEAL R. GROSS COURT REPORTERS AND TRANSCRIBERS 1323 RHODE ISLAND AVE., N.W.

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1236 from one that was a sheen that we saw on water and that has been 1237 dealt with. So but no offsite concerns at this point. 1238 Everything is locked down. 1239 The Chairman. So can you call give us assurance then that 1240 when it comes to the issue of Superfund sites we are not 1241 contamination into drinking water, that these sites are secured 1242 best they can be, that you've got this under control? 1243 Mr. Shaw. Yes, sir. 1244 Mr. Coleman. Yes, sir. 1245 Mr. Glenn. Yes, sir. 1246 Mr. Lopez. Yes, sir. 1247 The Chairman. Perfect. That's good news. I think that 1248 had a lot of us worried, including, I am sure, all of you. You 1249 know, that is the most dangerous things we face. 1250 Beyond that, you know, as we -- as we keep hearing about the 1251 power going on and going off in Puerto Rico and we knew they had 1252 a bad grid to begin with, what should we be worried about here? 1253 What can we do to help here on that issue of power and how 1254 much of this is really the responsibility of the grid owner and 1255 the power provider in Puerto Rico? 1256 Mr. Lopez. Well, Chairman, again, I think part of the 1257 challenge is, as I mentioned in the my testimony, the system itself

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1280 close communication with FEMA, Army Corps, our other partners. 1281 Our regions have been providing support where we signal. We 1282 have been very thankful to my colleagues here for their staff 1283 support as well. 1284 I would say that the communications are strong. The 1285 challenge is making sure that we can get the resources when we 1286 need them. 1287 The other challenge which we have been working at is also 1288 making sure that we are working with the local authorities and 1289 respecting their process -- their decision making capability, and 1290 that is -- that means in some cases we have to put things in front 1291 of them and give them time, recognizing -- and this is the 1292 challenge for those in the situation -- if you have been in a storm 1293 event and you are under constant duress, we are rotating crews 1294 in and out routinely --

1295 The Chairman. They are there --

1296 Mr. Lopez. -- they are working under constant duress. So 1297 part of our challenge is helping support their decision making 1298 and give them time and support they need so they can be at peace 1299 with mission objectives and corrective action.

1300The Chairman. Okay. Did you have something you wanted to1301-- no? Okay.

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1302 My time has expired. Mr. Chairman, thank you all for the 1303 great work you and your teams and the teams from all the agencies 1304 are doing the best they can in these circumstances and we 1305 appreciate that. 1306 But, again, we want to know if there is a problem that you 1307 need help on or they need help on, and I know that our resident 1308 commissioner has been terrific at bringing us all up to speed and 1309 keeping us up to speed. 1310 So with that, Mr. Chairman, I yield back. 1311 Mr. Shimkus. Gentleman's time has expired. 1312 The chair now recognizes the ranking member of the full 1313 committee, Mr. Pallone, for five minutes. Mr. Pallone. Thank you, Mr. Chairman. 1314 1315 Five years ago, Superstorm Sandy caused major damage to my 1316 congressional district including Superfund sites and water 1317 treatment facilities and we have seen even more of that with the 1318 latest hurricanes. 1319 So I would like to focus briefly on the importance of 1320 investing and making our environmental infrastructure more 1321 resilient. In the aftermath of Sandy, I saw the importance of this 1322 1323 firsthand when the storm badly damaged the Bay Shore Regional

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Sewage Authority, which treats the wastewater from a number of the towns in my district, and the authority completed a \$28 million project to rebuild the plant and make it more resilient to future storms.

But I don't think we should have to wait for disasters to make our infrastructure more resilient. So let me ask Mr. Lopez, what can EPA do to help communities in Puerto Rico and the Virgin Islands improve their drinking water and wastewater infrastructure to make it more resilient?

1333 Mr. Lopez. Thank you. Thank you, Chairman.

So part of the challenge is, again, part of it is the time we are in. Under the Stafford Act, we are in response. So this is an emergency. So it is my understanding that Stafford Act funding means you build in kind -- you replace in kind.

1338 So the issue is, and this goes back to you as our partner 1339 and our colleagues here, where do we signal programmatic and 1340 funding flexibility to allow other sorts of investment.

Now, just as an example, with the nongovernmental allies that we have had with the nonprocess sites, we have been able to put solar systems in a few isolated incidents.

1344 Mr. Pallone. All right.

1345

Well, let me ask you this. Do you think that we need to

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1390 Let me go back to Mr. Lopez. We heard troubling reports out 1391 of Puerto Rico, citizens drawing drinking water from a well on 1392 an unsecured Superfund site. What more could EPA do to protect 1393 public health from exposures to toxic sites after severe weather 1394 strikes? 1395 Mr. Lopez. So, Chairman, as I was mentioning to your 1396 colleagues, the contamination in the groundwater was really not 1397 affected by the storms, to our knowledge. 1398 The issue was making sure that the mitigation methods that 1399 were in place were functioning as intended -- fencing, pump and 1400 treat seat systems. 1401 The -- in Dorado, the wells in question were not accessible. Power supplies had been disabled. There was no ability to pull 1402 1403 water from the wells. So the source of water, again, was from 1404 the -- from PRASA, from the public --1405 Mr. Pallone. Do you think that we could do more to protect 1406 -- could EPA do more to protect public health from exposure to 1407 toxic sites after severe weather strikes or, again, this is just 1408 simply fixing damage? 1409 I mean, the concern I have is, again, what you said -- that 1410 maybe we are just simply fixing damaged fences, blocking access 1411 to these sites. I mean, this goes back maybe to what you were

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1412 || saying before. But just --

1413 Mr. Lopez. So at those sites the wells were not accessible 1414 of for public access, again, the groundwater contamination was 1415 there before the storm and remains and that is something we 1416 continue to work on.

1417 So our challenge is to mitigate -- again, track any plumes, 1418 for example, in the Dorado site. We are tracking a plume so we 1419 test water supplies. We test -- vigilance is really the issue 1420 here.

We remain vigilant and we certainly understand the importance of making sure that we are staying within Safe Drinking Water Act standards, keeping people under those threshold with their water supply.

Mr. Pallone. All right.

1425

1426 Mr. Lopez. So monitoring, continue testing -- those are --1427 and then mitigation remain the tools available to us.

1428 Mr. Pallone. All right. Thanks a lot.

1429 Mr. Shimkus. Gentleman's time expired.

1430 The chair now recognizes the vice chairman of the

1431 subcommittee, Mr. McKinley, for five minutes.

1432 Mr. McKinley. Thank you, Mr. Chairman, and thank you again1433 for having this hearing on this.

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1434 Let me skip from Region 2, 4, and 6 and move to Region 3 out 1435 of Philadelphia. There's an area that -- the flooding that had 1436 taken place the hurricanes had an impact not only in Texas and 1437 Florida and Louisiana, along the coast, but it had a demonstrative 1438 effect in north central West Virginia, in eastern Ohio, northern 1439 West Virginia, western Maryland, western Pennsylvania in the 1440 streams. 1441 The water that -- the amount of water that came down during

1442 that period of time we washed out -- our streams were full of 1443 debris, full of items that should have been dredged, and as a 1444 result we had water lines lost, exposed.

1445 We had septic systems that were destroyed. We had water 1446 pumping stations that went down because of this. So I am just 1447 curious -- and we had loss of life in north central West Virginia 1448 as a result of this.

1449So it is not just happening with hurricanes in the coastal1450areas that we are talking about -- the ravaging that took place.1451It has had an effect on the central part of this country as well.1452So my question, when they try to get the dredging of these1453streams so that they can mitigate the potential loss, often we1454are hearing from the region -- the EPA is they won't give permits.1455They go through an extended permitting period. Either that,

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1478 restoring the natural flow of the streams. Getting in to clear
1479 debris can be an ongoing mission but we also have to recognize
1480 that we have to give room for streams almost like a living organism
1481 to get rid of energy and to have a place -1482 Mr. McKinley. I understand.
1483 Mr. Lopez. So -1484 Mr. McKinley. But the EPA and FEMA are standing in the way

1485of permitting to do that. We have got to -- we had -- at1486Follansbee, West Virginia, they have had a -- their stream is eight1487feet of gravel and sand have built up in that so as a result of1488this they had no capability of absorbing the amount of water that

1489 came down and homes were washed out as a results of this.

1490 Mr. Lopez. So -- so --

1491 Mr. McKinley. So I am saying --

Mr. Lopez. You know, Chairman, respectively, I have Region
2 so I am your neighbor in New York, in particular, similar
topography.

1495I can only tell you that the partnership there has been with1496the state agent. DEC has been the agent in charge. EPA has1497worked --

1498 Mr. McKinley. The state keeps blaming the federal 1499 government. What -- where are we supposed to get through this

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1522 I think it would eliminate some problem because we know that 1523 when that hit -- Hurricane Harvey hit, out of the 23 cracker 1524 facilities in the -- in the Houston area 17 went down. 1525 So as a result, it had that ripple effect all across the 1526 country that people couldn't get resident supplies and companies 1527 had to reduce their workforce as a result of it. 1528 So I am hoping that we can continue to learn from this problem 1529 that has occurred and how we can have a secondary source, and we 1530 are not going to have both environmental impact and economic 1531 impact. 1532 I yield back. 1533 Mr. Shimkus. Gentleman's time has expired. 1534 The chair now recognizes the gentleman from California, Mr. 1535 Peters, for five minutes. 1536 Mr. Peters. Thank you, Mr. Chairman, and thanks to the 1537 witnesses for being here. 1538 You know, I think -- I spend a lot of time when I see these 1539 awful disasters come they -- they, obviously, cause a lot of 1540 dislocation and tragedy. 1541 They also cost us a ton of money at the federal government 1542 for cleanup, and I think a lot about what you might have learned 1543 as part of the cleanup that you might advise us to invest in ahead **NEAL R. GROSS**

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76

1544 of time.

So what are the things that maybe you've observed that you think, boy, if the federal government had invested in this beforehand we would have saved a lot of money in the long run. Anything in general that you gentleman saw? Maybe Dr. Shaw? Mr. Shaw. Yes. Thank you.

1550 Certainly, that is part of what we -- we have an ongoing 1551 process of trying to do the lessons learned and to that end we 1552 are in our second week of our after action review to learn the 1553 right lessons from this.

1554 Part of what I think addresses your question is the fact that 1555 we have -- the governor has put together a commission to rebuild 1556 Texas and part of what we are looking at there is identifying what 1557 are those resilience issues, opportunities, and needs both to 1558 build back infrastructure but also what do you do -- what is that 1559 next step you would do if you had additional funds or funds --1560 Mr. Peters. Anything in particular in mind right now? 1561 Mr. Shaw. There are things like several -- sometimes it is 1562 a reservoir -- excuse me, a retention systems. We have dykes and 1563 levy systems that have been proposed and often are waiting on 1564 funding.

1565

Mr. Peters. Okay.

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1566 And so there are projects that had been approved Mr. Shaw. 1567 and are just waiting on funding that would help to mitigate some 1568 of those flood issues. 1569 So those sorts of things are obvious and so we are trying 1570 to put together a better holistic package of what it looks like 1571 statewide but especially in the Hurricane Harvey impacted area. 1572 That seems wise to me. Mr. Peters. 1573 Before I leave you, Dr. Shaw, have you had -- we have had 1574 a lot of -- we have had issues with massive sewer spills that have 1575 flowed and come from Tijuana up into San Diego, which I represent. 1576 I wanted to see if you've had any experience in dealing with 1577 clean water and health issues with the CDC or FDA in connection 1578 with the issues you face in Texas. 1579 Mr. Shaw. Not specifically. 1580 Mr. Peters. How has that been? 1581 Mr. Shaw. Not specifically CDC and FDA. We partner, obviously, with EPA very closely on our -- on our water quality 1582 issues but I've not had experiences with CDC and FDA on those 1583 1584 issues. 1585 Mr. Peters. Okay. 1586 Maybe, Mr. Lopez, if you had any general responses to that 1587 question about Puerto Rico. I had a specific one, but any general **NEAL R. GROSS**

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1588 thoughts about what resiliency the federal government might be 1589 involved in building in so that we don't face the quantity of 1590 destruction that we saw this time next the wastewater --1591 Mr. Lopez. Thank you, Congressman. 1592 And, again, we mentioned a little bit about flexibility with 1593 funding to ensure that as rebuild occurs or as we move forward, 1594 because recognize that once we leave the response mode we head 1595 into recovery and that is going to be a very long conversation. 1596 And for any of my colleagues here we know that that is not 1597 just months. That may be years, and that may include additional 1598 rebuilding, reinvestment, flexibility of funding. 1599 The other thing that I was discussing with my colleague --1600 my deputy, Ms. McCabe -- is the issue of, in that case, having 1601 resources available or prepositioned, having --1602 Mr. Peters. Right. Mr. Lopez. -- because of -- because of their isolation 1603 1604 having resources prepositioned would be very helpful. 1605 Mr. Peters. Let me go back a step, because you are still 1606 -- I think you are still -- you are still framing the response 1607 issue. Let me just --1608 Mr. Lopez. We are very raw there. Yes, sir. 1609 Mr. Peters. -- give you an example of something that I just

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79

1610 read about, which is Tesla restoring power to the Children's
1611 Hospital in Puerto Rico with a solar and storage project.
1612 Now, it seems to me, I know -- I think that Puerto Rico burns
1613 bunker fuel, which is a logistical issue. You've got to get that
1614 -- you got to get there and, obviously, it speaks to the age of
1615 the power plant.

You have got -- I mean, I am sure you had a grid issues that are affected by the wind. But it does seem to me -- what I noticed in Puerto Rico was after the storms stopped, the sun was shining, and had there been distributed energy through solar -- smart solar investments, things like hospitals would be up online ahead of time.

I would certainly suggest that that is something we ought to be thinking about in these island places which are so isolated you can't just send a truck of bunker fuel out there.

Had we invested in solar in some of these facilities,
particular the -- around the critical infrastructure like
hospitals -- the Children's Hospital -- ahead of time, I think,
you know, a lot of these people wouldn't -- wouldn't have been
affected in the same tragic ways.

1630 I guess -- maybe I will turn to Mr. Glenn and Mr. Coleman.
1631 Do you have any sort of lessons learned in terms of pre-disaster

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1632 investments we might be considering right now so that next time 1633 this happens we won't be so on our heels? 1634 Well, I am fairly new to the federal government. Mr. Glenn. 1635 I have been here two months --1636 Mr. Peters. Welcome. 1637 Mr. Glenn. -- and prior to that in the private sector. 1638 I am enjoying it. Here is what --Thank you. 1639 Mr. Peters. I enjoy it sometimes. 1640 [Laughter.] 1641 Mr. Glenn. Here is what I walked in and observed literally 1642 day one on this was the communications interaction and 1643 relationships that we had with our peers at the state level and 1644 at the local level as well. So the one lesson I learned was we cannot do enough 1645 1646 coordination with our state and local and tribal partners to make sure that we know what their systems are, we know who the people 1647

1648 are and we train together and work together so that we can respond 1649 to this and that is the huge takeaway I had from this for the --1650 relative to the impacts in our region.

1651 Mr. Peters. Thank you.

1652 Mr. Coleman, my time is expired but maybe someone else will1653 as you the question.

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1654	Thank you. I yield back.
1655	Mr. Shimkus. Gentleman yields back his time.
1656	The chair now recognizes the gentleman from Houston, Texas,
1657	Mr. Olson, for five minutes.
1658	Mr. Olson. I thank the chair.
1659	I would like to start out with a point of personal privilege.
1660	Yesterday we found out that
1661	Mr. Shimkus. Not again.
1662	Mr. Olson found out that a fellow Texan this is good.
1663	Not good but sad. A fellow Texan, Gene Green, announced this will
1664	be his last term in Congress.
1665	He is a dear friend, a great Texan. We will miss you, but
1666	thank you for your service, my friend.
1667	Welcome to our four witnesses. A special Texas Aggie howdy
1668	to Chairman Shaw, and my question will be for you, Chairman Shaw
1669	and you, Mr. Coleman.
1670	First of all, could both of you talk about the sorts of
1671	hazards you saw in the Houston area and all of the area impacted
1672	by Harvey after Harvey left?
1673	I know, for example, we had some pretty foul water that
1674	threatened with bacterial infections and we had debris piles that
1675	were magnets as mentioned, snakes, rates, other animals.
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82

In fact, a young girl who lives in Texas 22 in Sienna Plantation was out working in Wharton, was bit by a copperhead snake in a pile of wet soaked clothes. So my question is do we know anything about how to respond to these threats with Harvey or was it just a larger scale of what you know you have to deal with when a storm hits like Harvey did?

1682 Mr. Shaw. Thank you, Congressman.

1683 Certainly, with regard to this event, it is -- a lot of the 1684 issues you see are common to a flood event but uncommon from this 1685 nature of the magnitude and the breadth of the impacted area.

So with regard to flood waters, anytime we have floodwaters that are going to inundate wastewater treatment plants you are going to have bacterial contamination and that is why our response cooperatively with the EPA was to provide information about how to deal with contamination from flood water.

With regard to the debris, certainly the magnitude of the debris is a challenge and it is exacerbated because of the fact that you have waste haulers, for example, that may have contracts up and down the coast and when you have -- the impacted area is up and down the coast you don't have enough resources there potentially to respond in a timely manner and it is just, you know, 30-plus million cubic yards of debris is an awful lot of debris

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1698 to deal with.

Mr. Coleman. And I would just say that during a natural disaster or any type of disaster there are many, many hazards. Our goal really is to inform the public very quickly of how they can best protect themselves while they are also trying to restore and recover their own property.

With regards to flood waters, we really advise people to minimize their exposure because the waters are contaminated and there are many hazards associated with that.

You mentioned some of the other things. People have to really wear protective equipment and be completely vigilant as they work on their individual property to restore that. I meant, that is very, very important and we work closely with our state and local partners to make sure that that information is put into the hands of every individual so that they understand what they have to deal with.

Mr. Olson. You mentioned the constant threats out there. For example, a first responder in Missouri City had a flesh-eating virus. Somehow, it got into his -- he had a little small cut probably from working through a debris field and got exposed to that virus. So thank you, thank you for getting ahead of the curve.

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1720 And you guys mentioned, I think -- if I quote you correctly, 1721 Mr. Coleman, you said the coordination between you and Dr. Shaw 1722 was, quote, "exceptional," and I think it was on the ground and 1723 that is what -- that is my opinion as well. 1724 But I have concern. You said you prepared for that with 1725 exercise after exercise with TCEQ. How do you do that with a storm 1726 like Harvey, a big storm like that, and also how about with three 1727 storms? 1728 You have Irma and Marie hit at that same time. Can you 1729 coordinate with different regions as opposed to TCEQ? I mean, 1730 boy, that is a big challenge, isn't it? 1731 Mr. Coleman. Yes, sir. It is a big challenge. We work 1732 There is an annual hurricane exercise that the very closely. 1733 state organizes that involves EPA, the Corps of Engineers, other 1734 state agencies as well where we really go through the game planning 1735 as to who does what making sure we have all of the proper contact information, everybody knows what their lane is, and what 1736 1737 capabilities that they bring to the table. 1738 So we participate in that. We also work on a daily basis 1739 to deal with much smaller incidents with the state so that our 1740 staff and their staff know each other well and they work seamlessly 1741 together to respond to these incidents.

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1742 Dr. Shaw, you want to add something to that? Mr. Olson. 1743 Mr. Shaw. Yes. I would -- I would say that we actually --1744 in one of those exercises we had the foresight to mock up a response 1745 to a Category 3 hurricane making landfall in Corpus Christi. 1746 Harvey was a 4, making landfall just north of Corpus Christi, 1747 but it points out the fact and the way I usually characterize the 1748 importance of these exercises is we need to make sure that whenever 1749 we show up for the real thing we are not making introductions to 1750 our colleagues and counterparts in other agencies. 1751 We already know who they are. We know them by face and by 1752 name, and so those exercises are priceless so that we can hit the 1753 ground running, not having to make introductions to try to figure 1754 out a game plan. 1755 We already have the game plan. We've already practiced it. 1756 We begin implementation. 1757 Thank you. Mr. Chairman, I noticed my time has Mr. Olson. expired and I will close by saying at 9:54 this morning all four 1758 1759 witnesses confirm they are happy my Houston Astros won the World 1760 Series title. 1761 I yield back. 1762 Mr. Shimkus. I hadn't heard that before so thanks for 1763 letting us know that.

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1764 The chair now recognizes Mr. Green for five minutes. 1765 Mr. Green. Well, I am proud of the Astros, too. But I want 1766 to thank our panel for being here and thank the chair and the 1767 ranking member for holding the hearing today on Hurricanes Harvey, 1768 Irma, and Maria. 1769 I also want to thank our panelists -- for the panel, 1770 particularly Administrator Coleman and Dr. Shaw, and I know the 1771 partnership that you've had between our regional office of EPA 1772 and the state has been -- even when I was in the legislature years 1773 ago. 1774 And I want to thank the EPA for the decision last month after 1775 our new administrator viewed the site to remove the cancer-causing 1776 dioxins out of the San Jacinto Waste Pits, and that is both on 1777 the north side of Interstate 10 and the south side of Interstate 1778 10. And it is an important issue in east Harris County. 1779

I have represented it off and on over the years, first as
a state senator and then in Congress and I shared it with Ted Poe.
Now I share it with Congressman Brian Babin.

1782So we need to fully remove the contaminated soil and1783accelerate it with the recovery -- discovery of the damage and1784the temporary cap during Hurricane Harvey.

1785

Administrator Coleman, what is the time line for EPA to begin

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1786 the removal of the contaminated material from the San Jacinto 1787 Waste Pits?

Mr. Coleman. Thank you, Mr. Green, for that question. So, as you know, we've issued the recommended decision in October. We are working with both the Justice Department and the responsible parties on this special notice and negotiating a consent decree that will facilitate the specific design and then removal.

1794 Specifically, we expect the negotiations to take six to 12 1795 months in working with the responsible parties. The design 1796 activities can take as long as another six to 12 months and then 1797 the work will start.

So I can't give you a specific time frame because those negotiations are complex and do involve a number of issues that we have to work through with them.

1801So but that is generally what we expect to see.1802Mr. Green. Okay. Well, I would hope you would provide1803information and EPA has been doing it to the constituents out there1804for, like I said, mostly Congressman Babin now. But I sure have1805a lot of people who go out and crab and fish right near those sites

1806 and I would -- we'd like to make sure they're not, well, consuming 1807 that but also to make it much more safer.

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1808And so the process will take almost a year, and I understand1809the difference because the temporary cap is about a \$20 billion1810and then the permanent cap or the permanent removal is anywhere1811-- the latest estimate, I think, from EPA was almost \$120 billion.1812Mr. Coleman. That is correct -- \$115 million to \$1201813million.

1814 Mr. Green. And so I expect the responsible parties have the 1815 option of going to the courthouse and making that decision. But 1816 I understood the original report from the regional office to the 1817 national office was really strong opinion on what needed to be 1818 done.

Our district also includes -- and this is in our district and has been forever, it seems like -- the U.S. oil recovery in Pasadena, Texas, it is actually on a -- near a bayou in Texas. Pete's gone but it is Vince Bayou coming through Pasadena and into the Houston ship channel or Buffalo Bayou. And many members of the public and local media voiced concern about that toxic material mitigating into the Vince Bayou.

1826Was there any information from that site that it -- did any1827of that site bleed into the -- into Vince Bayou and ultimately1828Buffalo Bayou and the Houston ship channel?

Mr. Coleman. Again, thank you for that question.

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1830 As you know, the U.S. oil site consists of two nearly adjacent 1831 locations but they are separated by a road and they are different 1832 in elevation. 1833 So the former city of Pasadena wastewater treatment plant 1834 was flooded and because of the nature of what they did there, which 1835 was treat wastewater, we do recognize that there were probably 1836 some releases of things that were at that site. But we also know 1837 that they never stored hazardous waste or recycled oil on that 1838 portion of the site. 1839 The second portion of the site, which is located at a higher 1840 elevation, where they did process oils to recover, that site 1841 actually did not flood. 1842 It did, of course, sustain over 50 inches of rainfall. So some of the buildings which are in somewhat disrepair there was 1843 1844 rainfall that entered the buildings. There was some -- we would call it storm water runoff that 1845 1846 occurred and we did assess Vince's Bayou. We looked very closely at the receding waters and collected samples. We did not see that 1847 1848 anything significant left that upper portion where the waste oil 1849 was processed. 1850 So we feel confident that Vince Bayou only received some

1851 runoff from that lower area that was the former Pasadena

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90

1852 wastewater treatment plant. 1853 Mr. Green. Okay. Is there a viable --1854 Mr. Shimkus. Quickly, please. 1855 Mr. Green. -- or responsible party for the U.S. oil site? 1856 Mr. Coleman. Yes, sir. We are working with the responsible 1857 They say a group of investors who are actually working parties. 1858 to both maintain stabilization of the site as well as working with 1859 us on a more thorough investigation and, ultimately, a cleanup 1860 of that site. 1861 Thank you, Mr. Chairman. Mr. Green. 1862 Mr. Shimkus. Gentleman's time has expired. 1863 The chair now recognizes the gentleman from Ohio, Mr. Johnson, for five minutes. 1864 Thank you, Mr. Chairman, and gentlemen, thank 1865 Mr. Johnson. 1866 you for joining us today. Mr. Lopez, prior to the hurricanes hitting Puerto Rico this 1867 1868 season, most people would have characterized the municipal solid 1869 waste landfills as a mess even on a good day, with 19 of the 29 1870 landfills operating out of compliance with federal law. 1871 So what's the status of the landfills in the -- in the wake 1872 of the hurricanes today? 1873 Mr. Lopez. So the landfill status, of course, as you NEAL R. GROSS

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This is a preliminary, unedited transcript. The statements within may be inaccurate, incomplete, or misattributed to the speaker. A link to the final, official transcript will be posted on the Committee's website as soon as it is available. 91 1874 mentioned, we had challenges and continue to be challenges on the 1875 island. 1876 Debris management, which is really the response, is a complicated undertaking. So there is pressure, of course, to put 1877 1878 more material into the landfills. 1879 But what we are attempting to do, working with Army Corps 1880 and our partners, is to separate the waste streams and dispose 1881 of them in a fashion that relieves pressure on the landfills. 1882 So whether it be vegetative debris or hazardous medical waste 1883 -- any number of elements that could wind up in a landfill -- we 1884 are working aggressively to separate out and dispose of, working 1885 with the authorities in a proper fashion. 1886 Mr. Johnson. So are they still a mess? 1887 Mr. Lopez. So a landfill situation that existed prior to 1888 the hurricane remains --1889 Mr. Johnson. No. No. What are -- what's the status today? 1890 Mr. Lopez. So the landfills continue to operate as they did 1891 before. There has been no change in that. 1892 Our challenge -- incident challenge is handling the debris, 1893 keeping the landfills functioning but also handling the debris 1894 which could accumulate in the landfills if not properly 1895 intercepted.

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1896 Do you -- do you think that Puerto Rico should Mr. Johnson. 1897 keep its delegation authority under Subtitle D? 1898 Mr. Lopez. Ultimately, the -- and, again, we -- this will be a longer-term conversation, Congressman. So our challenge 1899 1900 will be to help support the local authorities. I feel that that 1901 is the appropriate thing to do. 1902 We want to support them, give them capability, help provide 1903 resources where we can and also address other ways other than 1904 landfilling to address their solid waste. 1905 But recognize that that is not EPA's function as a -- as a 1906 role. We don't usually do solid waste management. We defer to 1907 the local government authorities for the actual management of 1908 solid waste. 1909 Mr. Johnson. Is it -- is it fair to say that current debris removal since the hurricanes -- current debris removal is going 1910 to further overload the already filled capacity in those 1911 landfills? 1912 1913 We are working to intercept it. Mr. Lopez. There is a 1914 danger -- there is always a possibility. But we are working very 1915 aggressively and thoughtfully with the leadership to identify 1916 waste streams and properly provide siting to separate them out 1917 and mitigate them appropriately. So there is always a potential

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1918 || but we are working to minimize the impact.

1919 Mr. Johnson. Okay.

1920 Mr. Coleman, in your testimony you write that while each 1921 response has its own unique challenges, we remain flexible to 1922 address individual needs.

1923 So as you indicated, things like geographical constraints, 1924 economic conditions, damage extent, and infrastructure 1925 vulnerabilities are all factors that shape federal agency 1926 response when a natural disaster strikes.

1927In other words, how we respond to Houston's challenges is1928clearly different than those of Puerto Rico's challenges. So how1929does the EPA currently ensure response efforts take these1930challenges and regional characteristics into consideration?1931Mr. Coleman. So we work -- we have a national cadre of1932responders that work very closely together on training and that

1933 forms the baseline of how we respond.

As I mentioned, we have a set of technical assets -- the ASPECT, TAGA, PHILIS -- that also provide that specialized equipment. But then we work very closely with our state partners in each location as well as those other state agencies that we work with with our FEMA regional offices, with things called regional response teams that then do additional specialized

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1940 training and facilitation as it relates to the specific incidents 1941 that may occur in different geographic areas.

So those multiple layers of training exercises, having the
right equipment, allows us to then be adaptable and flexible in
responding to all types of different disasters and events.
Mr. Johnson. Okay. Is there room for improvement?

1946 Mr. Coleman. I believe that there's always room for 1947 improvement and, as Chairman Shaw indicated, the state does a 1948 after-action report. We do -- we are doing a similar exercise. 1949 We participate with the state side.

But we also have them participate and critique our work so that we can make improvements and we do that after each event and we memorialize those lessons learned so that as we incorporate that into our training going forward we are able to make those improvements.

1955 Mr. Johnson. Okay. All right.

1956 Thank you, Mr. Chairman. I yield back.

1957 Mr. Shimkus. Gentleman's time has expired.

1958The chair now recognizes Dr. Ruiz from California for five1959minutes.

1960 Mr. Ruiz. Thank you, Mr. Chairman.

1961

I want to throw out a compliment to my colleague from Ohio

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1962 who just asked those questions. Those are very good questions, very insightful. Thank you for asking those questions. 1963 I want to continue on that line in terms of coordination and 1964 1965 some local flexibility problems that I saw when I went to Puerto 1966 Rico myself that was an unscripted visit. 1967 I went on my own accord and I visited a lot of locations 1968 impromptu so I can get the real story and not the script that folks 1969 would like to give you, and I had great assistance when I was on 1970 the ground as well. 1971 And by way of background, I am an emergency medicine 1972 physician trained in public health and also trained in 1973 humanitarian disaster response from the Harvard Humanitarian 1974 Initiative and other locations. 1975 We talked about coordination. Let me just ask an open-ended 1976 question. Mr. Lopez, who is running the show in Puerto Rico? Who 1977 is -- who is really in charge? Mr. Lopez. So, understandably, we are under a command and 1978 1979 control structure, as we mentioned. Again, FEMA makes the 1980 mission assignments. 1981 Mr. Ruiz. Okay. 1982 Mr. Lopez. So mission assignments are handed out by FEMA. 1983 Mr. Ruiz. So you would say FEMA is in charge? **NEAL R. GROSS**

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1984 Through our command and control structure. Mr. Lopez. 1985 Mr. Ruiz. Yes. 1986 That -- that is -- again, as we interact we take Mr. Lopez. 1987 mission assignments from FEMA --1988 Mr. Ruiz. Okay. 1989 Mr. Lopez. -- and we work with our headquarters in our 1990 regional offices for support. 1991 Mr. Ruiz. Okay. And how are you coordinated? Where --1992 like, how does that information get down to the EPA folks that 1993 are in the field? 1994 Mr. Lopez. So we have a command and control structure and 1995 in our region we have an incident coordinator. 1996 Mr. Ruiz. Yes, and where is that incident coordinator 1997 located? 1998 Mr. Lopez. He is in Edison, New Jersey. We also have staff 1999 ___ 2000 Mr. Ruiz. In New Jersey. 2001 -- we also have staff -- and this is -- this Mr. Lopez. 2002 is critical for Puerto Rico -- we also have staff embedded on the 2003 island. So --2004 Mr. Ruiz. Where -- were exactly are they embedded? 2005 Mr. Lopez. Guaynabo. NEAL R. GROSS

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2006 Mr. Ruiz. Guaynabo. 2007 Mr. Lopez. And also out of San Juan. 2008 Mr. Ruiz. And where else are they embedded? In San Juan? 2009 Mr. Lopez. San Juan. 2010 Mr. Ruiz. Okay. 2011 Mr. Lopez. So we have staff embedded there. We also have 2012 some staff --2013 Mr. Ruiz. Okav. So, you know, the point I am making is that 2014 when I was there the number-one thing you need is clarity in 2015 leadership, in roles and responsibilities, and having to bring 2016 in all the -- all the local players, as Mr. Coleman was talking 2017 about, and everybody in a very flexible rapid response group and 2018 I didn't see that in Puerto Rico. 2019 We are using a spoke and hub model that is basically run out 2020 of San Juan. Very top-down heavy information is being sent out. 2021 All the different agencies are working in silos. They 2022 weren't even communicating with each other. So there is things 2023 like you mentioned, obstacles in being able to reach certain 2024 geographic locations. 2025 I worked with the 82nd Airborne closely in Port-au-Prince 2026 right after Haiti. Those -- those men and women can move 2027 mountains to get supplies anywhere in the world and I didn't see

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2028 that kind of coordination on the ground to get those supplies, 2029 to get the people where they needed to go.

2030 So here is what I am proposing, and I am speaking to every 2031 else, is, you know, the challenges of Puerto Rico are very 2032 different than the challenges in Houston and Florida.

You don't have a large concentration of population with an infrastructure that is intact -- electricity and communication. You still have the majority of people without power. You still have the majority of people who have difficulty finding that clean water. And you say some of the -- some of the water systems are operational.

2039 What does that mean, operational? Because I have been into 2040 some hospitals they say are operational but that is only one floor 2041 of the five floors of the hospital, but yet people want to tout 2042 them as operational.

2043So what we need to talk about is capacity and what is the2044capacity of the infrastructure to reach how many people.2045Oftentimes, gentlemen, we get -- we get the reports of how many2046people on the ground, how many water bottles, how many systems.2047But that is not the way that you manage or that you count2048accountability in a disaster response. We have to talk about2049capacity. So what is the capacity of the different agencies and

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But

2072 you can have better decision making, coordination, and 2073 responding. 2074 Your role is to test and monitor and to track changes.

2075 then that needs to get translated to actual implementation in a 2076 much more rapid way so that goods and repairs can be made in a 2077 transparent and prioritized way on the ground.

And so that is -- my time is up -- so that is my -- that is my recommendation, given my experience and I think that we need to move forward in trying to implement some of those.

2081 Mr. Shimkus. Thank you, Dr. Ruiz. I agree.

2082We had a very similar hearing like this on the Energy2083Subcommittee and the question I asked, well, who's in charge.

2084 Mr. Ruiz. Yes, and --

2085 Mr. Shimkus. I would have loved for --

2086 Mr. Ruiz. -- and right now we heard FEMA but then when I 2087 was on the ground FEMA said Puerto Rico --

2088 Mr. Shimkus. I -- I --

Mr. Ruiz. -- and Puerto Rico says FEMA.

2090 Mr. Shimkus. I don't disagree and I -- I wish that the

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2091 administration would have just parachuted 82nd there --

2092 Mr. Ruiz. I would have loved to have seen that.

2093 Absolutely.

2089

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2094 Mr. Shimkus. -- to some of the very small villages and I 2095 think we all would have been better -- best served. Then we could 2096 have worried about who is responsible later. But you need to get 2097 service there immediately. 2098 Mr. Lopez. Chairman, if I -- just briefly, too. And not 2099 last but not least, there is a joint field operations center there 2100 and we do have EPA incident commanders and we have branch leaders 2101 in Puerto Rico. 2102 So there is an incident command center there. Those other 2103 agencies are embedded but --2104 Mr. Ruiz. See, when you say that, though, Puerto Rico is 2105 big, you know, and you leave us with the impression that it is 2106 somewhere. 2107 But where exactly, and are they in the different 2108 municipalities and do we have the right people working in a group 2109 out in the field in those different municipalities, because when 2110 I was there they didn't exist. 2111 FEMA told me they didn't have field command posts. DMAT did 2112 not have field command posts. I spoke to different agencies that 2113 did not -- they said that this would be a good idea and something 2114 that they would be very willing to work with and actually I am 2115 meeting with HHS later today to address this concept.

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This is a preliminary, unedited transcript. The statements within may be inaccurate, incomplete, or misattributed to the speaker. A link to the final, official transcript will be posted on the Committee's website as soon as it is available. 102 2116 Mr. Shimkus. Thank you. Great. Thank you very much. 2117 The chair now recognizes the gentleman from Texas, Mr. 2118 Flores, for five minutes. 2119 Speaking of HHS, that is going to be my Mr. Flores. 2120 question. 2121 I want to thank the chairman and ranking member for the --2122 for holding this hearing. I want to thank the panel for joining 2123 us today. 2124 Under Emergency Support Function Number 8, the Department 2125 of Health and Human Services, or HHS as it is commonly called 2126 around here, is the primary agency for ESF Number 8 and includes 2127 support for potable drinking water, solid waste disposal, and 2128 other environmental issues related to public health. 2129 I have got a question -- this question for Mr. Lopez and Mr. 2130 Coleman, starting with Mr. Coleman. Number one, have you worked 2131 with HHS to carry out this function regarding providing potable 2132 water and also solid waste and debris removal in communities 2133 affected by hurricane damage this season. 2134 Mr. Coleman. Yes, sir. We do work with HHS. As specific 2135 to Hurricane Harvey, as the state and FEMA determined the specific 2136 federal assistance that is necessary. In this particular 2137 response, that role of HHS was somewhat limited because of, A, **NEAL R. GROSS**

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2159	with the hurricane response and you indicated that the funds to
2158	Mr. Shaw, you gave us a breakdown of TCEQ's costs for dealing
2157	Mr. Flores. Okay.
2156	been working with them.
2155	Mr. Glenn. No, sir. It's part of that structure and we have
2154	Mr. Glenn, do you have anything to add?
2153	Mr. Flores. Okay.
2152	health interests.
2151	of Health. So, ultimately, we do have the representation of
2150	Our local engagement has been with the Puerto Rico Department
2149	in that conversation.
2148	is part of the unified command structure so that they are immersed
2147	Mr. Lopez. The only thing I would say, again, is that HHS
2146	Mr. Lopez, do you have anything to add regarding
2145	Mr. Flores. Okay. Thank you, Mr. Coleman.
2144	by the state.
2143	able to quickly address those and provide the support as requested
2142	headquarters and HHS in general as any issue comes up and we are
2141	coordinate and have reach back capability to both the CDC
2140	three members from the Centers for Disease Control and they
2139	coordination work with them, but embedded with my staff I have
2138	the state capacity was quite extensive and we had done a lot of

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2160 reimburse you would be coming from FEMA. Has FEMA been a good 2161 partner in working with the state of Texas and dealing with the 2162 response and recovery efforts?

Mr. Shaw. Yes, and there is sort of various aspects of how that operates. We have, in the initial public assistance reimbursement from FEMA, about \$700,000 anticipated for that cost and that is the initial travel and what have you, working with the initial response.

We also have a \$15 million authorization from FEMA for us to work with EPA in dealing with the field operations, which includes a lot of our command and control -- our assessment and location of containers displaced and what have you in the field operations.

2173 So \$700,000 for the initial component and \$15 million to work2174 with EPA on those field operations.

2175 Mr. Flores. Okay. What can be improved upon in terms of 2176 that process? It sounds to me like it has worked pretty smoothly. 2177 Do you have any suggestions for improvement?

2178 Mr. Shaw. It is working well. Communications is the 2179 primary issue and we have a lot of lessons learned. So yes, I 2180 think we will learn more but I think the key thing is to point 2181 out one of the issues, for example, are lessons learned. We work

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2182 very closely with EPA. In this event, we were able to very quickly 2183 deal with things such as fuel waivers that took weeks in past 2184 events and took hours in this event and that allowed us to focus 2185 on those critical issues, making sure we got water, wastewater, 2186 and immediate harm issues addressed quickly.

2187 Mr. Flores. Okay. In this process, have you come across 2188 anything where Congress can help in terms of making statutory 2189 improvements to the Stafford Act or any other related federal 2190 statutes to deal with catastrophes like this?

2191 There are -- there is room for improvement and Mr. Shaw. 2192 the challenges, quite frankly, Congressman, are going to be those 2193 tradeoffs because, you know, as you look at -- and this is sort 2194 of outside of my lane -- but one example is dealing with the repairs 2195 on the recovery side of that to homes, for example, and I think 2196 there's opportunities to be able to get that done much more quickly 2197 and to do permanent repairs as opposed to something that is 2198 temporary.

The reason that I am interested in that is because getting those folks back into their homes has such a huge health and environmental impact because the longer it takes to get those homes repaired the longer you have those health issues associated with debris with people that are outside or displaced from their

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2204 housing and then the economics associated with all those. 2205 So there are room for improvement. A lot of those have to 2206 do with making sure that Congress is making the types of decisions 2207 about how to improve the efficiency of getting those repairs done 2208 as well as making sure that they're ensuring that those funds are 2209 expended properly and you avoid -- there is going to be foul play 2210 involved and that becomes a huge issue as how much you balance, 2211 making sure you get the funds out there but you minimize the money 2212 that is fraudulently spent. 2213 Mr. Flores. Okay. 2214 Thank you for your responses. Again, I thank the panel for 2215 joining us. I yield back the balance of my time. Mr. Shimkus. Gentleman yields back. 2216 2217 The chair now recognizes the gentlelady from Colorado, Ms. 2218 DeGette, for five minutes. 2219 Ms. DeGette. Thank you so much, Mr. Chairman, and thanks 2220 to the witnesses for coming. 2221 Mr. Glenn, before Hurricane Irma, you and the other leaders 2222 in Region 4 increased staffing of the Regional Emergency 2223 Operations Center, the deployed on-scene coordinators to the 2224 state emergency operations center, and you provided a Region 4 2225 liaison to the FEMA Regional Coordination Center. Is that right?

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2226 Mr. Glenn. Yes, ma'am. 2227 Ms. DeGette. And do you -- can you estimate how many senior 2228 leaders were deployed prior to the hurricane's landfall? Mr. Glenn. Prior to the landfall, as far as our executive 2229 2230 leadership I, myself, went down and we had two other senior leaders 2231 that worked directly for me went to south Florida, and then some 2232 individuals from headquarters were also down in Florida. 2233 Ms. DeGette. Okay. Were you the most senior person down 2234 there before landfall or was there someone more senior to you? 2235 Mr. Glenn. Prior to landfall, I was the most senior person 2236 in the Region 4 down there. 2237 Ms. DeGette. Okay. And, you know, it is like Mr. Coleman 2238 was saying, there was a lot of coordination with the state and 2239 local officials down there. Is that right? 2240 Mr. Glenn. Absolutely. Yes, ma'am. 2241 Ms. DeGette. So, Mr. Lopez, I want to -- I know you didn't 2242 arrive on the scene until September 28th but I want to ask you 2243 the same question, if you know. 2244 Before Hurricane Irma hit Puerto Rico, did the leaders in 2245 Region 2 increase staffing in the Regional Emergency Operations 2246 Center? 2247 Mr. Lopez. So, again, I started actually on October 11th. **NEAL R. GROSS**

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2248 Ms. DeGette. Oh, okay. 2249 Mr. Lopez. But --2250 Ms. DeGette. So do you -- do you know what kind of staffing 2251 was increased? 2252 I would have to -- I would have to get back with Mr. Lopez. 2253 you for detail. 2254 Ms. DeGette. Okav. 2255 Mr. Lopez. I have some assessments but I don't want to be 2256 inappropriate with a response. So I'd be happy to respond. 2257 Ms. DeGette. Okay. And so the questions -- you'll probably 2258 need to get back to me on the staffing, the onsite coordinators, 2259 and who the senior leaders were who were there prior to landfall. 2260 The anecdotal evidence that we have is that whereas in Region 2261 4 they were all there before it hit, in Region 2 what happened 2262 was they were all rushed -- aside from the people who were already 2263 embedded there that you testified about before that we were 2264 already behind the curve because we had to send a lot of people 2265 So if you can get me that information that would be really in. 2266 helpful. 2267 And I want to ask you again -- to continue, Mr. Glenn, now, 2268 on September 12th there were 12 field hazard assessment teams conducting facility assessment support at chemical and oil 2269

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2314	number.
2315	Ms. DeGette. But like Mr. Glenn correct me if I am wrong
2316	Region 4 had six teams on the ground on September 12th that
2317	were making boots on the ground assessment of Superfund sites.
2318	Is that right, Mr. Glenn?
2319	Mr. Glenn. Yes, ma'am.
2320	Ms. DeGette. So that is what I am wondering, Mr. Lopez, and,
2321	frankly, I am a little concerned that you don't know. I realize
2322	you didn't come in until October. But we need to know how robust
2323	and how quick the response was and the very fact that we are having
2324	this hearing, Mr. Chairman, and they can't answer any of these
2325	questions for Region 2 Region 4 has it Johnny-on-the-spot
2326	just goes to the concern that we are all that we are all
2327	expressing today and if I can get your answers maybe
2328	Mr. Lopez. Sure.
2329	Ms. DeGette maybe my concerns will be alleviated. But
2330	I fear that they will not.
2331	Thank you. I yield back.
2332	Mr. Shimkus. The gentlelady yields back her time and I thank
2333	her for those questions. It just goes to my point of a standard
2334	operating procedure and why are regions different when there is
2335	a disaster heading in a certain area.
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2336 Ms. DeGette. Why is it one thing in one region and another 2337 thing in another region? 2338 Mr. Shimkus. Right. So thank you very much. 2339 The chair recognizes the gentleman from North Carolina, Mr. 2340 Hudson, for five minutes. 2341 Thank you, Mr. Chairman, and thank you to all Mr. Hudson. 2342 the witnesses for being here today. 2343 Mr. Glenn, I particularly want to say welcome to you. 2344 Obviously, Region 4 includes my home state of North Carolina. Ι 2345 look forward to getting to know you better and working with you 2346 in the future. 2347 While the damage in Puerto Rico and the U.S. Virgin Islands 2348 is significant, Region 4, including Florida, sustained substantial damage from Hurricane Irma on the heels of rebuilding 2349 2350 after the 2016 hurricane season. 2351 There were several reports after Hurricane Irma of issues with drinking water systems and several communities under boiled 2352 2353 water advisories. 2354 What is the status, Mr. Glenn, of drinking water systems in 2355 Region 4? Are there still people without access to safe drinking 2356 water? 2357 Mr. Glenn. The information I have is that all drinking water **NEAL R. GROSS**

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2358 systems are operational in Region 4. We are not aware of any 2359 people served by a system that are without access to potable 2360 drinking water. 2361 What about right after the storm? Mr. Hudson. Great. How 2362 did the drinking systems fare during the hurricane? 2363 Mr. Glenn. Well, as you know, any time a storm like this 2364 comes through it has impacts. It has immediate impacts, and so 2365 almost every municipality that was in the path of the storm did 2366 experience some type of impact at varying levels. 2367 The impact you've heard today -- physical damage, power 2368 outages, personnel, chemical supply interruptions, and the like 2369 -- so almost every system was impacted and --2370 Mr. Hudson. In terms of water systems -- drinking systems? 2371 Yes, sir. Drinking systems. Correct. Mr. Glenn. 2372 Mr. Hudson. Well, just on your assessment, are there any 2373 improvements to the drinking water systems that we could look at 2374 to help in future situations like this? 2375 Mr. Glenn. Well, as you know, we operate under the 2376 permission authority of the Stafford Act and we will continue to 2377 do so and fulfill whatever authorizations are provided for in that 2378 act. 2379 Mr. Hudson. Got you.

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For everybody, the whole panel, in June 2016 the National Infrastructure Advisory Councils recommended FEMA consolidate federal emergency response roles and responsibilities for water into a single ESF within the annex of the national response framework to improve coordination and reduce confusion and improve the information sharing and communication.

The 2016 recommendation repeats an NAIC recommendation from 2387 2009 that declared DHS should elevate water services to its own 2388 ESF within the NRF to achieve higher prioritization of water 2389 systems during emergency response that opens up to at least 2390 everyone from FEMA.

And Dr. Shaw, you're welcome to join in too, but do you believe making this change is a wise move? I would just ask the FEMA regional folks to chime in.

2394 Mr. Coleman. So with regards to that recommendation, we 2395 think that and my personal experience is that water infrastructure 2396 is extraordinarily important. It essentially sets the basis for 2397 when people can repopulate an area.

2398 So, you know, I think it is very important. I don't have 2399 a specific opinion on if it should be its own emergency support 2400 function but I think that working very closely with the state 2401 governor's office, et cetera, to make sure that in a response you

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2402 restore service as soon as possible is the most important thing. 2403 Mr. Hudson. So you don't -- you don't want to say whether 2404 making its own ESF would help with that coordination? 2405 Mr. Coleman. I actually -- from my personal experience the 2406 coordination with the governor's office and the local officials 2407 is the most important coordination that needs to take place and 2408 when that takes place you're able to actually get the right 2409 equipment, infrastructure, or support to bring those systems back 2410 online. 2411 Mr. Hudson. Got you. 2412 Dr. Shaw, I see you are chomping at the bit. Please. 2413 Mr. Shaw. And I am going to be supporting what Mr. Coleman 2414 said as well and that is that I think the key point is in my state 2415 it may be difficult for me to assess whether that -- what that 2416 need would change because we have such a focus on water and 2417 wastewater as our initial response in that. 2418 I am thinking back through the days before, during, and after 2419 the landfall and I don't -- I have not identified the place where 2420 that would have changed things because we work cooperatively and 2421 our mission is first and foremost to get out and assess those issues that are immediate harm and key among those are water and 2422 2423 wastewater systems and getting those back online.

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2424	We have partners such as with Texas I always get this wrong
2425	the Texas American Waterworks Association our TXWARN system
2426	which helps us to bring together different resources from
2427	different services that are available to get equipment in places.
2428	Those things are all working very well. And so my only concern
2429	with changes is making sure we don't lose what's working well
2430	because it is working well in the state of Texas. Obviously, you
2431	want it quicker, but those are tweaks as opposed to major
2432	overhauls.
2433	Mr. Hudson. Got you.
2434	I have got a little over 10 seconds. Do either Lopez or
2435	Glenn, do you have an alternate opinion?
2436	Mr. Lopez. Just to reinforce, I was a local official and
2437	I was also on the ground during Irene and Lee. The issue of
2438	communication is really the critical issue.
2439	So whether it is a single function or a coordinated function,
2440	you really need to be in the heads of the plant operators who know
2441	exactly what they need and how to get up and running. So if you
2442	can penetrate to that level quickly, that is really what you need.
2443	Mr. Hudson. Great.
2444	Mr. Chairman, my time has expired. I will yield back.
2445	Thank you.

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117

2446 The gentleman yields back his time. Mr. Shimkus. 2447 We want to thank this panel. You can tell -- we know you've 2448 travelled far and there is still a lot of work to do and so we 2449 are very appreciative of your efforts. 2450 And there are some members who have asked questions for you 2451 If you can do so in a timely manner, that would also to respond. 2452 Thank you for what you do and now go back to your be appreciated. 2453 regions and get to work. 2454 And with that, we will dismiss this panel and ask for the 2455 second panel to join. 2456 Okay. Vamanos. Let us go. You Texas Aggies, get out of 2457 the hearing room. 2458 [Laughter.] 2459 Olson, let's go. Hallway. 2460 Okay. We want to thank all our witnesses for being here 2461 today, taking the time to testify before the subcommittee. Our 2462 second witness panel for today's hearing includes Mr. Mike Howe, 2463 executive director and secretary treasurer for the Texas Section 2464 of American Waterworks Association; Mr. Mark Lichtenstein, chief 2465 of staff, chief sustainability officer, State University of New 2466 York, College on Environment Science and Forestry; Ms. Lyvia N. 2467 Rodríquez del Valle, executive director of Corporacion del

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2468 Proyecto ENLACE del Caño Martín Peña; and Mr. Trent Epperson, 2469 assistant city manager administration, City of Pearland. 2470 So you were able to be here for the -- obviously, the first 2471 This will be a smaller group but still as important as panel. 2472 we get your statements into the record. 2473 There will be some of us who will be here to ask the questions, 2474 as you saw in the first panel. We do appreciate you being here 2475 and with that we will start with Mr. Howe. You are recognized 2476 for five minutes and your full statement is submitted for the 2477 record. 2478 You are recognized, sir.

2479 STATEMENTS OF MIKE HOWE, EXECUTIVE DIRECTOR, TEXAS SECTION OF
2480 AMERICAN WATER WORKS ASSOCIATION, ON BEHALF OF AMERICAN WATER
2481 WORKS ASSOCIATION; MARK LICHTENSTEIN, CHIEF OF STAFF AND CHIEF
2482 SUSTAINABILITY OFFICER, SUNY COLLEGE OF ENVIRONMENTAL SCIENCE AND
2483 FORESTRY; LYVIA N. RODRÍGUEZ DEL VALLE, EXECUTIVE DIRECTOR,
2484 CORPORACIÓN DEL PROYECTO ENLACE DEL CAÑO MARTÍN PEÑA; TRENT
2485 EPPERSON, ASSISTANT CITY MANAGER, CITY OF PEARLAND, TX

2486

2487 STATEMENT OF MR. HOWE

2488 Mr. Howe. Thank you much and good afternoon, Chairman 2489 Shimkus and members of the subcommittee.

2490 My name is Mike Howe, the executive director of the Texas 2491 Section AWWA and we manage the Texas Water/Wastewater Agency 2492 Response Network, or TXWARN.

The mission of TXWARN is to provide emergency preparedness disaster response and mutual aid assistance for water and wastewater utilities. TXWARN began after Hurricane Katrina when it was apparent that the coordination and prioritization of water utility needs was disjointed under the existing national response framework.

2499 We in the water sector realized that we needed to develop 2500 a utility-to-utility mutual aid system. AWWA spearheaded the

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2501 WARN initiative and collaborated with other stakeholders to 2502 facilitate the growth of WARN from the two-state program in 2006 2503 to the 50 programs we have nationwide today. 2504 Membership in TXWARN is free and is available to all public 2505 and private utilities in Texas, making it the largest 2506 utility-to-utility mutual aid program in the country with more 2507 than 1,200 utility members that provide services to 78 percent 2508 of the population of the state of Texas. 2509 The Texas Section AWWA manages TXWARN and receives partial 2510 funding from the TCEQ via the state revolving fund program to 2511 facilitate training and exercises.

2512 Hurricane Harvey made landfall as a Category 4 hurricane in 2513 Nueces and Aransas Counties on August 25th and, as you know, 2514 meandered to the northeast over the upper Texas coast for four 2515 days.

2516 It presented water utilities with unique challenges. As the 2517 storm approached, we activated the TXWARN system on October --2518 August 23rd. We first began preparing support teams for the 2519 inevitable aid requests.

Ground zero for Hurricane Harvey was the small coastal town of Port Aransas. At daylight after the storm the local water utility manager assessed the damage to the community and the water

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121

2523 system.

The power was out for the water pumps, one of the water supply lines from Corpus Christi was out of service, and the majority of the community's water systems were leaking.

As Harvey crossed Aransas Bay, it brought significant similar damage to Rockport's water and wastewater system. The first major request for TXWARN came early Sunday morning on behalf of Port Aransas. The water system had to be operational before authorities could bring the population back.

2532 TXWARN contacted the San Antonio Water System, or SAWS, a 2533 little more than two hours away from Port Aransas and its 2534 management agreed to send equipment and manpower to Port Aransas. 2535 In less than 24 hours, SAWS had deployed 20 field staff and by 2536 Friday of that week they had completely restored service.

2537 SAWS also responded to Rockport, performing repairs to it 2538 water and wastewater systems. TXWARN arranged to relief SAWS 2539 crews after 10 days from this grueling work with crews from the 2540 Austin water utility.

2541 During the nearly two-week response period TXWARN was full 2542 activated, we managed more than 50 similar requests for large and 2543 small systems. We are very pleased with our response operations 2544 during Harvey but there is always room for improvement.

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2545 Specifically, I would like to call your attention to how the 2546 needs of the water sector are prioritized and coordinated as part 2547 of the national response framework, or NRF. 2548 The current organizational structure of the NRF largely 2549 reflects the 1992 federal response plan prepared by FEMA. That 2550 was 25 years ago. The experiences of the water sector since then 2551 suggest that this current model requires a thorough review and 2552 update. 2553 The loss of drinking water and wastewater services compounds 2554 the complexities of all response activities and impacts the 2555 ability of first responders to sustain shelters, hospitals, and 2556 other first responding units. 2557 Therefore, prioritizing the recovery of water and wastewater 2558 service is essential to bringing normalcy and commerce back to 2559 any community. 2560 The disaggregated approach under the national response 2561 framework means that no single entity at the federal level has 2562 total responsibility for the water mission. This is our issue, 2563 and others at the federal level has also recognized this. 2564 In 2009, the National Infrastructure Advisory Council 2565 recommended the Department of Homeland Security elevate water 2566 services to its own ESF category within the national response **NEAL R. GROSS**

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123

2567	framework.
2568	Seven years later, the NAIC recommended that DHS direct FEMA
2569	to consolidate federal emergency response roles and
2570	responsibility into a single ESF.
2571	Implementing these recommendations will be consistent with
2572	the approaches applied for similar critical infrastructure such
2573	as transportation, communications, and energy.
2574	We urge Congress with its oversight jurisdiction and
2575	responsibilities to direct FEMA to reconsider how the NRF is used
2576	to support disaster response and recovery. This is vital for
2577	protecting public health, the environment, and all the
2578	communities we serve.
2579	And thank you very much. [The prepared statement of Mr. Howe for
2580	
2581	**************************************

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124

2582 Mr. Shimkus. Thank you, sir.

2583 And now I would like to recognize Mr. Mark Lichtenstein from

2584 the State University of New York. You are recognized for five

2585 minutes.

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126

I have been working with local people to devise a sustainable
approach for the storm debris. Some U.S. government responders
are appreciated.

However, there is concern from some residents and other experts regarding the potential ecological and human health impacts of a disaster debris management method of choice of the Army Corps of Engineers -- air curtain incineration.

ACI is a past practice of FEMA and the Corps in these situations and they have proposed it for the Virgin Islands and possibly Puerto Rico as well.

2618This would add insult to injury, especially considering that2619much of the debris is clean vegetation. There are better ways.2620During Superstorm Sandy in New York City, the Corps planned2621to use ACIs continuously for four months but they stopped after2622one month because they could not get them to function properly.

Air quality was exceeded during days of high humidity and this was November in New York City. Humidity is routinely extremely high on the islands. Local people and others are concerned that ACIs will emit pollutants that could cause pulmonary aggravation, particularly for individuals with asthma or cardiac diseases.

2629

Diesel and gasoline generators, which you have heard about

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2630 already today, and exposure to indoor mold are already aggravating 2631 existing respiratory conditions.

2632 If burning moves forward in any manner, appropriate agencies 2633 should be asked to address potential health issues, especially 2634 regarding existing conditions. The agency for toxic substances 2635 and disease registries should be requested to do a review of the 2636 health impacts of burning before it commences. EPA should be 2637 asked to establish air monitors downwind of the burners and 2638 burning should not commence until monitors are established and 2639 EPA immediately shares results with the public.

2640 Much of the topsoil has been lost through storm water. They 2641 have been hammered with rain since the hurricanes. So it is 2642 critical that the vegetative debris remain to help replenish the 2643 soil that the plants of the islands need.

When considering options like burning, it is essential to incorporate externality costs -- costs for which it is hard to calculate an immediate number like climate change, the impacts of depleted soils on the ecosystem, or health effects of air pollution.

These impacts can be reduced through other viable options and this is one reason groups like the National Recycling Coalition have opposed ACIs.

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FEMA and the Corps have said they will take the governor's lead. Many in the Virgin Islands have asked their governor to oppose incineration. Experts from Puerto Rico, the Virgin Islands, and stateside have worked to develop a viable alternative including recovery of hardwood and then mulching and composting. This all could be done safely and efficiently.

2658 Composting is a process that nature has perfected over 2659 millions of years. It has been successful in many locations at 2660 large scales and with other disasters like Superstorm Sandy.

Puerto Rico officials are working towards a similar sustainable plan. Providing a valid option to incineration can serve as a positive framework for other disaster-impacted areas in the future and that is key, and it represents a new sustainable scheme for debris and waste on the islands, going forward.

This is a once and done opportunity to get a leg up on acquiring the infrastructure needed for management of the island's long-term organic waste problem, which is about 50 percent of the island's normal waste stream. This gets to the questions about landfills earlier.

2671 To help this sustainable option move forward, assistance 2672 could come in the form of a waiver of the matching funds 2673 requirement for the next 18 months while the islands build towards

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2674 this more resilient and future-focused infrastructure. 2675 Right now, FEMA is requiring the debris management solution 2676 to be fully implemented in 180 days and this is considered 2677 unrealistic for composting or burning. 2678 The residents and visitors of Puerto Rico and the Virgin 2679 Islands deserve our focused attention. They deserve clean air 2680 and a healthy ecosystem. 2681 The hurricanes were certainly not desired, but this is a 2682 great opportunity to build a more resilient and sustainable future 2683 so that the islands can come back better than before. 2684 Thank you on behalf of my institution, ESF, and SUNY, and 2685 we stand ready to assist the subcommittee as it continues its work. [The prepared statement of Mr. Lichtenstein follows:] 2686 2687 2688 **********INSERT 6*********

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130

2689	Mr.	Shimkus.	Thank	you	very	much.
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2690 Next, we would like to turn to -- I don't know if it is Señora

2691 or Señorita. Señor? Rodríguez del Valle.

2692

You are recognized for five minutes.

This is a preliminary, unedited transcript. The statements within may be inaccurate, incomplete, or misattributed to the speaker. A link to the final, official transcript will be posted on the Committee's website as soon as it is available. 131 STATEMENT OF MS. RODRÍGUEZ 2693 2694 Ms. Rodríquez. A disaster within a disaster --2695 2696 Mr. Shimkus. One moment, please. There is a -- just press 2697 a button there. You'll be fine. 2698 Ms. Rodríguez. Thank you. I will start again. 2699 A disaster within a disaster -- that is what the eight 2700 densely-populated communities on the Caño Martín Peña and others 2701 that were already under environment distress prior to Irma and 2702 Maria have been experiencing since the hurricane struck. 2703 The 25,000 U.S. citizens living on the eastern half of the 2704 Martín Peña tidal channel already feared rain. They knew about 2705 flooding. An average of twice a year heavy rainfall translated 2706 into severe floods with wastewater. 2707 Accounts of raw sewage coming out of the shower and toilets or of waking up in the middle of the night to a wet bed and water 2708 2709 to your knees and waste were common. 2710 They knew having to dry a wet mattress in the sun to have 2711 somewhere to lay down to sleep at night. They also knew disease. 2712 The prevalence of gastrointestinal disease in the Cano was of 31 2713 percent in three months, compared to 20 percent in a full year 2714 for Puerto Rico.

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132

Forty-four percent of the children five years of age and under living close to the Caño had asthma. People had experienced the dengue fever, zika, and chikungunya epidemics. There have been reports of leptospirosis, a disease transmitted mainly by contact with the urine of rats and other animals and which can be fatal.

The Martín Peña channel stretches for 3.7 miles across San Juan, connecting San Juan Bay, where Puerto Rico's busiest port is, to the inland San Jose Lagoon to the east, vital for the stormwater management of the adjacent Luis Muñoz Marín International Airport. It is part of the San Juan Bay, recognized by the EPA for its national significance.

From a 200- to 400-feet wide navigable channel, today it is barely five feet wide in some areas. Adjacent communities lack sewer systems and the stormwater system has collapsed. The San Jose Lagoon has lost superficial area and depth, increasing the risk of floods at the airport and other communities throughout San Juan.

2733 If historic -- if history were to repeat itself, almost a 2734 century ago after two major hurricanes and in the midst of an 2735 economic depression, persons migrated to San Juan and the wetlands 2736 around the Caño became home.

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2737 Prior to Maria, the barrios which survived decades of 2738 eviction and gentrification were already a symbol of resiliency, 2739 empowerment, and grass roots organization. 2740 Residents engaged in an unprecedented participatory 2741 planning process that led to the creation of the comprehensive 2742 development ENLACE Caño Martín Peña project. Since then, together with the public and private sectors, they moved forward 2743 2744 an agenda of long-term resiliency that has the potential of 2745 transforming the city by reconnecting its navigable bodies of 2746 water. 2747 Recovering the Caño with participation means healthier and 2748 safer conditions for the residents without fear of gentrification 2749 thanks to a community land trust recognized last year with the 2750 United Nations World Habitat Award. 2751 And then Irma and Maria struck. Close to 1,000 families lost 2752 totally or partially the roofs to their homes. Approximately 75

homes were totally destroyed. The communities experienced
another severe flood with raw sewage, only that this time around
it lasted for four days.

2756 Approximately half of the trees along the Caño fell and 2757 together with the debris from the destroyed houses further blocked 2758 the Caño and the storm sewers.

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2759Since Maria, it only takes 15 minutes of rain for floods to2760start. It even floods on a sunny day. We already have had two2761significant floods in the past two months, which have been2762affecting other areas of San Juan as well.

Since Maria, water quality throughout the estuary has significantly worsened. The disturbance of the Caño and uncollected debris from streets caused a rat infestation and augmented the risk of mosquito-borne diseases. Alligators are approaching people's homes. Tarps and Corps-installed blue roofs are already in place. However, there is mold and water filtration.

Fifteen years of organizing allowed for ENLACE, the grassroots G-8, and the land trust to work with partners and bring aid. However, the crisis is far from over.

2773 Now, imagine living in a state of never-ending crisis and 2774 trauma -- whole families sleeping on the floor on the room that 2775 does not get wet after sleeping under the rain for many days in 2776 the capital city of Puerto Rico, San Juan.

Using federal recovery funds to support initiatives like the
ENLACE Caño Martín Peña project presents a unique opportunity for
an emblematic recovery process that increases Puerto Rico's
long-term resiliency and sound economic development.

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135

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2781	Investing in the ecosystem restoration of the Caño
2782	infrastructure and related acquisitions and relocation supports
2783	equitable development and participatory democracy.
2784	There is already a credible and proven institutional and
2785	policy framework in place and engaged community and partners,
2786	shovel-ready projects and NEPA compliance for the ecosystem
2787	restoration piece elaborated under the Water Resources
2788	Development Act of 2007.
2789	Due to the current crisis, the Caño cannot keep waiting for
2790	ordinary processes to occur. At a time of severe political,
2791	economic, fiscal, and financial challenges, support from the U.S.
2792	federal government is crucial.
2793	That is why I urge Congress to pursue the inclusion of this
2794	project and all of its components in any upcoming disaster
2795	recovery bill for Puerto Rico.
2796	This project is necessary and should be a priority due to
2797	serious repercussions in the San Juan Bay Estuary, public health,
2798	and safety.
2799	And finally, I want to stress the importance of ensuring that
2800	any funding related to Martín Peña or other communities in a
2801	similar situation promote on-site resilient recovery rather than
2802	displacement and gentrification and for assistance policies to
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136

2803 be context sensitive to allow for a just and equitable disaster
2804 recovery.

2805 We are concerned that FEMA individual assistance programs 2806 requiring families in need for housing to leave outside the flood 2807 plain can make families in desperate need to leave their 2808 communities.

2809 When this happens in areas where resilient onsite 2810 alternatives are visible and that have been under pressure of 2811 displacement and gentrification due to their strategic location, 2812 those who have struggled for their lands for decades can end up 2813 being uprooted.

No person should leave fearing the rain and no community should be displaced when there is an alternative at hand. With your support, long-term solutions that also keep Puerto Rico face -- help Puerto Rico face its economic crisis such as this project will become a reality.

2819An official visit to Puerto Rico I do invite you to come and2820visit the work we've done. Thank you.

[The prepared statement of Ms. Rodríguez follows:]

2821

2822

2823 ********* INSERT 7*********

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This is a preliminary, unedited transcript. The statements within may be inaccurate, incomplete, or misattributed to the speaker. A link to the final, official transcript will be posted on the Committee's website as soon as it is available. 138 2827 STATEMENT OF MR. EPPERSON 2828 2829 Mr. Epperson. Good afternoon, Chairman, and members of the 2830 subcommittee. 2831 My name is Trent Epperson. I am the assistant city manager 2832 with the city of Pearland in Texas and I am pleased to be invited 2833 here today to present to you the effects of Hurricane Harvey as 2834 it occurred in the city of Pearland, especially as it relates to 2835 critical water and wastewater infrastructure and the need to make 2836 that infrastructure resilient and redundant. 2837 The city of Pearland is a suburban city of about 120,000 2838 residents just south of the city of Houston. It has been one of 2839 the fastest growing communities in the nation over the past 15 2840 years. 2841 We have grown from a population of about a little over 30,000 in the year 2000 to today over 120,000 to where we are the third 2842 2843 largest city in the Houston Metro area. 2844 During Hurricane Harvey, with its unprecedented flooding, 2845 Pearland experienced structural flooding affecting over 1,700 2846 residents, 50 businesses, and flooding to critical infrastructure 2847 including two wastewater treatment plants. 2848 Most of the flooding occurred along Clear Creek, which,

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139

germane to this subcommittee is a 303D-listed impaired water body for bacteria. With a 500-year storm event, it is -- it was estimated before this storm that about 7,000 residents in the Clear Creek watershed would flood. I believe we saw that or more in Pearland and the downstream communities.

2854There is, however, a U.S. Army Corps of Engineers drainage2855project that has been on the books since the '60s but yet to be2856funded.

Based on the studies associated with that project, approximately half of those residents that flooded in the watershed would likely have been spared during Hurricane Harvey. Additionally, critical infrastructure within the watershed would not have flooded and failed as well. Although the city of Pearland has grown rapidly, our new development and our new infrastructure follows current codes and standards.

The result was that in those newer areas we experienced very minimal flooding and that is in areas where we have added tens of thousands of new rooftops over the past 15 years.

2867 So we see that along with the completion of the Clear Creek 2868 drainage project what is needed is funding for continued sound 2869 investment and resilient and redundant critical infrastructure, 2870 especially to bring the older infrastructure to current

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2871 standards.

The most critical of those infrastructure pieces are water, wastewater, and the automated systems that control that infrastructure. It is a critical life safety issue for any city to have the ability to deliver clean safe drinking water during a disaster.

For Pearland, this critical infrastructure must have adequate generator power, flood proofing, and adequate elevation to survive a minimum of a 500-year storm as well as able to withstand Category 4 hurricane winds.

2881 During Hurricane Harvey, our water system performed very 2882 well with only one water well sustaining minor damage due to power 2883 surging. We never lost pressure and we were always able to 2884 deliver that clean safe drinking water.

2885 Unfortunately, some of our adjoining communities and the 2886 smaller water systems around us were unable to do that and did 2887 have to issue boil water notices.

Additionally, continuity of service in treating wastewater is critical for citizens sheltering in place and the return of evacuees when they return -- when they come back to their homes. We must ensure that wastewater is adequately treated and not released during a flooding event because that can affect the

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141

2893 downstream water quality in our streams and bayous.

In our area, wastewater facilities are often located in low-lying areas near the stream that they outfall to, making them vulnerable to flooding, and therefore a lot of them are in need of the same resiliency and redundancy criteria applied to our drinking water facilities.

During Harvey, unfortunately our wastewater system did not fare near as well as our wastewater system. Our Longwood wastewater treatment plant, which was originally built in the 1960s and is sited in one of the old oxbows of Clear Creek, was inundated with flood waters and inoperable for up to 72 hours during the event. The estimated damage to the plant is about a million and a half dollars.

But due to the proximity of the plant to the creek, instead of making those expensive repairs on a plant that is vulnerable to the next flood, this facility should have its flows redirected to an adequate plant to mitigate any future damage or loss of service.

2911 One final critical piece of infrastructure to our utility 2912 operations is the Supervisory Control and Data Acquisition 2913 System, or SCADA.

2914

What SCADA is is it is basically a system that allows us to

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2915 monitor and control our critical water and wastewater facilities
2916 remotely.

2917These systems must be redundant and resilient to provide2918continuous connectivity to those facilities throughout an2919emergency event.

2920 SCADA is indispensable to ensure the plants and the lift 2921 stations are operational and properly functioning when we cannot 2922 reach those facilities due to high water or debris.

2923 During Hurricane Harvey, for three days we could not 2924 physically access 18 wastewater lift stations which are critical 2925 to getting the wastewater to the plants. Due to a lack of SCADA 2926 redundancy, we were also unable to monitor many of these 2927 facilities remotely.

2928The city of Pearland, although challenged, fared relatively2929well through Hurricane Harvey and will recover stronger than we2930were before the disaster.

As we rebuild, we look to ensure our critical infrastructure is able to withstand flooding, high winds, and other potential disasters.

To do this, we must have adequate recovery and mitigation funding available so that we do not just rebuild our critical infrastructure to its original state but we rebuild resilient

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2937	redundant infrastructure ready for the next disaster.
2938	Thank you, Mr. Chairman.
2939	[The prepared statement of Mr. Epperson follows:]
2940	
2941	**************************************

144

2942 Mr. Shimkus. Thank you very much. I appreciate the opening 2943 statements. I want to start by then recognizing myself for five 2944 minutes for a round of questioning.

2945 And I have some here prepared in front of me but I really 2946 want to go off script a little bit, and if you would hit the time, 2947 too, Jerry.

The -- you sat in on our -- the first panel, which was long with a lot of extensive questioning and I think there was a consensus by my colleagues on both sides that maybe we are just not organized right and I think it addresses all three of your kind of positions because, one, it deals with, you know, the debris management issue, who makes the decision and for what purposes.

2954 Obviously, the estuary and the river systems, but we also 2955 want to make sure that if we go in this direction how do we not 2956 -- it was mentioned in the first panel -- how do we not stumble 2957 on them having a centralized government get involved in things 2958 that are working, right.

So let me -- let me go and turn to each one of you and, Mr. Howe, my questions were going to be -- going to be totally directed to you but I really would like everyone's response because this is kind of similar to the energy hearing where in some places there is mutual agreements and when you have states or local service

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2964 areas you can coordinate and you can send folks to. Obviously, 2965 islands much more difficult, as we saw with the Energy 2966 Subcommittee.

So what would be a structure by which -- I think your testimony was there are things that are working -- be careful not to screw those up if there was a change in the -- in essence, a change of the Stafford Act in some delineation of responsibility. Mr. Howe. In speaking to what I spoke in my remarks on the written testimony, also the issue of the multiple ESFs that water is under.

Now, for lack of a better term, under the WARN program across the country we have done a workaround. The WARN programs are utilities supporting utilities and most of those programs are operated independently of the state regulatory agency or the state operation center, even though as you saw from Mr. Shaw earlier we cooperate with them directly.

We are partially funded and we are unique to this, by the way. The Texas -- the TXWARN program is partially funded by the TCEQ. So we work very closely with them and the state operations center.

2984 But we have identified an issue that occurs in the state 2985 operations center because they are broadly looking at public works

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2986 and the totality of it -- that even though we are in touch with 2987 them and coordinating with them, they are not necessarily always 2988 paying full attention to the water/wastewater side. 2989 So during Harvey we had situations where we would loop back 2990 to them and have conversations and we would have to go through 2991 a complete refresh --2992 Mr. Shimkus. I wonder if I can jump in so I --2993 Mr. Howe. Yes, please. 2994 Mr. Shimkus. So your position is that, and I am learning 2995 these acronyms as we go through the hearing, it should be raised 2996 to an emergency support function level and that would help? 2997 In other words, it is disaggregated now. Mr. Howe. If it 2998 was under one, then I think, as I've said to somebody before, that 2999 then those in emergency management would have the same red light 3000 flashing on water/wastewater as they do on lifesaving and everything else that they do because it would be a single support 3001 3002 function and we know from the industry that there are -- you know, 3003 we have only talked about three essential services -- police, 3004 fire, and EMS. But without electric, water, and wastewater the first three can't function. 3005 3006 Mr. Shimkus. Okay. Let me go to Mr. Lichtenstein.

Mr. Lichtenstein. It is a dichotomous thing. I drove all

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147

3008	around the islands Saint John, Saint Thomas, Puerto Rico,
3009	Vieques. So need for plans ahead of time, clearly.
3010	Standard operating procedures we talked about those
3011	earlier. But this is definitely a matrix thing. Can't be top
3012	down. It is not linear but yet there is a critical role for the
3013	U.S. government. What I saw, this dichotomous thing, was some
3014	unbelievable local efforts of stepping up to the plate. On the
3015	island of Vieques, and I don't know if you're familiar with that
3016	island but that is an island on the
3017	Mr. Shimkus. We used to debate it a long couple years
3018	ago all the time.
3019	Mr. Lichtenstein. Yes. So here's a story about
3020	initiative. The U.S. Coast Guard, while Maria was still kind of
3021	hanging out, the captain there used initiative and sent some
3022	cutters over to Vieques before anybody else was there for days.
3023	So how do you how do you value that and how do you enhance
3024	that kind of activity to help the locals? Clarity of leadership
3025	is key.
3026	Mr. Shimkus. Right.
3027	Mr. Lichtenstein. What I saw was lack of clarity of
3028	leadership. So this is matrixed and it is something that we are
3029	going to have to figure out how to structure and how do you value
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148

3030 these local people that are just stepping up to the plate?
3031 Mr. Shimkus. And speaking of local people, Ms. del Valle
3032 -- Rodríguez del Valle?

3033 I have to totally agree with Mark Ms. Rodríguez. Yes. 3034 Lichtenstein's remarks. In our case being a community in San Juan 3035 basically the after -- right after Maria it was the residents the 3036 ones that took care of themselves and the institutions that have 3037 been working with them for a very long time came in the next day 3038 and that was the only outside help that they received in 3039 practically a month and this was San Juan with a lot of partners 3040 -- previously built partnerships.

3041 So the other thing that is helpful is for the -- in the case 3042 of the federal government it was very critical for us to have 3043 people on the ground that actually were able to listen, because 3044 sometimes you design a program that you think is going to work 3045 very well everywhere and not necessarily all the circumstances 3046 are the same.

3047 So we were able to establish those relationships and improve 3048 dramatically the type of help that was being brought to the 3049 communities, particularly with the project of the blue roofs and 3050 other assistance that we finally got from FEMA and the federal 3051 government.

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149

3052 Mr. Shimkus. Thank you.

3058

And let me, with my colleagues' permission so I can get Mr. Epperson on the record, Texas, local community -- how do we be careful that we are not part of the problem and, you know, we are from the federal government -- we are here to help, and then we end up not being helpful?

Mr. Epperson. Thank you, Mr. Chairman.

3059It is a very local response and effort from the beginning,3060and with the experience of Hurricane Harvey we really could not3061get out, could not get in for several days where we are located.3062We did -- we did -- we do have other local government contacts3063throughout Texas that were able to send high water rescue vehicles3064that were able to help out.

So I think that initial response it is very local and how you have to deal with that, and then once the flood waters recede and we start talking about projects to -- the enhancement projects and projects to make sure that the next time we have the high wind event or the high water event, I believe that is where we can partner with FEMA and the federal government and the other agencies.

3072 Mr. Shimkus. Thank you very much, and I appreciate my 3073 colleagues allowing me to go a few minutes over.

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3074Now I would like to turn to Mr. Tonko for five minutes.3075Mr. Tonko. Thank you, Mr. Chair.

Ms. Rodríguez del Valle, where water systems are now working
in Puerto Rico are there still concerns with water safety?
Ms. Rodríguez. Yes. Yes, and the people are being told to
boil the water before consumption. But when you have no power
at home, you know, and the gas is limited it is very hard to comply
with those basic health measures.

3082 Mr. Tonko. I have heard that there are over 200 independent 3083 water systems on Puerto Rico but they serve a very small percentage 3084 of the population.

3085 Can you characterize the types of communities or people 3086 served by independent non-PRASA water systems?

3087 Ms. Rodríguez. Well, I am not an expert in this. But from 3088 my knowledge, these are areas particularly in the mountain side 3089 of Puerto Rico where it was very difficult to provide formal 3090 services.

3091 So the families did community aqueduct systems decades ago 3092 and they have been living on those for a long time.

3093 Mr. Tonko. Thank you.

3094And Mr. Epperson, your testimony mentioned that you need to3095make \$1.5 million worth in repairs to your water -- your wastewater

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151

3096 treatment plant. How important is it to protect your community's 3097 investment by making sure that that facility is more resilient 3098 to future flooding? Mr. Epperson. I think it is very important, you know, that 3099 3100 we do have the plant up and running with temporary repairs. 3101 Those are the more permanent repairs and -- but because of 3102 the location of that plant we really are going to look at an 3103 enhancement type project with that -- with that plant to send those 3104 wastewater flows to one of our other plants, expand that plant, because it is situated and located in a location less vulnerable 3105 3106 to the rising waters that we experienced at this plant. 3107 Mr. Tonko. And are there currently sufficient federal 3108 funding opportunities to help the communities assess and mitigate 3109 future vulnerabilities to their water supplies or water systems? 3110 Mr. Epperson. I believe there are opportunities. I am not certain that they are sufficient. You know, we are exploring what 3111 3112 those opportunities are right now and moving through that process. 3113 Mr. Tonko. Thank you. 3114 And Mr. Howe, I am interested in how FEMA can improve its 3115 emergency support functions for the water sector. How does it 3116 compare to other critical infrastructure sectors? 3117 Mr. Howe. I think the difficulty we have is because it is

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This is a preliminary, unedited transcript. The statements within may be inaccurate, incomplete, or misattributed to the speaker. A link to the final, official transcript will be posted on the Committee's website as soon as it is available. 153 3140 the landfills there and what particular challenges exist because 3141 of the land challenge itself? 3142 Mr. Epperson. Yes. I can't speak with authority to the 3143 landfills but I do have some knowledge. Some of them are really 3144 exceeding capacity and exceeding federal regulations. Others 3145 are well run and doing fine. 3146 The main island of Puerto Rico, of course, has more land than 3147 the other islands. In the Virgin Islands there are serious 3148 issues. 3149 There are only two landfills -- one on Saint Croix and one 3150 on Saint Thomas. Both have capacity issues and operational 3151 So that is a big concern on those islands. issues. 3152 Mr. Tonko. Thank you. 3153 And Ms. Rodríguez del Valle, if you had one recommendation 3154 to this subcommittee or to the committee in general, what would 3155 it be in regard to what you see right now in Puerto Rico? 3156 Ms. Rodríquez. I think disasters kind of bring out the best 3157 of the -- of the society and also the institutional flaws, and 3158 we are seeing a little bit of that currently in Puerto Rico, not 3159 only regarding the way in which we have been able to address the 3160 crisis. 3161 It has brought the best of the Puerto Rican people and its

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3162 capacity to organize and do a great job when nobody else was doing 3163 it. But it has also brought to light issues regarding the way 3164 in which disaster relief was organized, particularly during the 3165 first days.

3166 It seemed to many of us living there that there was a lot 3167 of disorganization and some of the decisions actually delayed 3168 assistance to the people who needed it the most.

3169 I also wanted to add one point regarding Mr. Shimkus' 3170 question and it has to do with federal government aid. Actually 3171 being able to be culturally sensitive is something as simple as 3172 having FEMA officers visiting people's homes to speak Spanish 3173 because most people in Puerto Rico do not understand English and 3174 sometimes decisions were being done regarding the type of aids 3175 that these families received with a language barrier in the 3176 middle.

3177 So perhaps that curtailed the ability of many of them to be 3178 able to actually get the help they needed.

3179 Mr. Tonko. Thank you very much.

3180 And with that, I yield back, Mr. Chair.

3181 Mr. Shimkus. Thank -- the chair thanks the gentleman.

3182 The chair recognizes the gentleman from Texas, Mr. Olson, 3183 for five minutes.

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This is a preliminary, unedited transcript. The statements within may be inaccurate, incomplete, or misattributed to the speaker. A link to the final, official transcript will be posted on the Committee's website as soon as it is available. 155 3184 Mr. Olson. I thank the chair. 3185 I am going to open with the praise and Texas brag about a 3186 friend and leader back home in Texas 22, Trent Epperson. And 3187 Trent, I should give you a proper Aggie greeting -- howdy, my 3188 friend. Welcome. 3189 Trent is the assistant city manager of Pearland, Texas, as 3190 Pearland is the largest city in Brazoria County he mentioned. 3191 with over 120,000 people and growing, rapidly. 3192 Trent helps to run their half a billion dollar capital budget 3193 as well as overseeing both the city's public works and utilities 3194 department. 3195 Chair, we are so proud of Pearland and Brazoria County's 3196 response to Hurricane Harvey. Please tell the committee how many 3197 people died in Brazoria County because of Hurricane Harvey. 3198 Mr. Epperson. There were no people that died in Brazoria 3199 County during Hurricane Harvey. 3200 Nada. Nil. No deaths. That's Mr. Olson. Zero. 3201 amazing, despite five feet of rain in parts of Brazoria County. 3202 Is that correct? 3203 Mr. Epperson. Yes, sir. 3204 Mr. Olson. Okay. Now the fun stuff -- the questions. 3205 What kind of help did you get immediately after Harvey hit **NEAL R. GROSS**

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outside of Brazoria County from the federal government, from the
EPA, maybe from FEMA, from other states, other entities?
What would you change about the storm response lines of
communication now to the next storm that is coming? We know it
is coming.
Mr. Epperson. As far -- as far as immediate help, I think

3212 it was mostly locals that were able to do the -- all of the 3213 immediate response needs.

We have been working with FEMA, meeting with them on a weekly basis since then. I believe that process for the immediate needs and the debris removal and developing our damage assessments is moving forward.

3218 One of the areas where I think that moving forward we want 3219 to improve as well as working with the feds improve is a buy-out 3220 program where we -- it has in the past been a -- kind of sporadic 3221 when there is a disaster.

We move forward with a buy-out program. It occurs several months to maybe more than a year after the actual event itself. And so we see a need for accelerating that. There are people that are out of their homes right now and don't know whether to repair those homes and make those repairs because they don't know whether there is a buyout opportunity or not.

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3228 So I think the ability to accelerate that and have that as 3229 an ongoing program even when there is not a disaster that just 3230 occurred would really help from a local's perspective. 3231 Mr. Olson. Anything else you wish from Washington -- what 3232 we could do better to help you guys get through that? Because 3233 you quys were awesome but we can help you I think a lot more, much 3234 more -- much guicker. 3235 I mean, it just seemed like over and over people calling me 3236 up, I can't get somebody to come out to my house to, you know, 3237 look at my house and assess the damage. 3238 For example, Pearland had five large -- four large dump 3239 trucks go in that heavy water. Three are flooded out. You are 3240 down to one dump truck. And so I quess, you know, we are trying 3241 to get resources to you. 3242 Anything we can improve on here in D.C.? Because you all 3243 do great but we want you to do better. We can help, I think. 3244 Mr. Epperson. Yes, sir. I think any of those resources 3245 would help. 3246 The previous panel, Trent, talked about planning Mr. Olson. 3247 scenarios with TCEQ and EPA. Has Pearland been involved in any 3248 of those? Just -- have you been involved at that level planning 3249 for another hurricane like Harvey? Have you been involved in that

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158

3250 or are you sort of outside looking in?

Mr. Epperson. We work, you know, with our local county emergency management as well as with the Texas Department of Emergency Management. But we haven't had any direct contact or work with those folks prepreparing for emergency.

Mr. Olson. Have you had to adjust your plans for an 800 years flood as opposed to a 500-year flood or a 100-year flood? I mean, how much have you adapted to what happened in August with Hurricane Harvey?

3259 I think the big thing we have recognized is Mr. Epperson. 3260 that our newer infrastructure designed to current standards fared 3261 very well even with the unprecedented flooding and that it is our 3262 areas that have been there for many decades that were designed 3263 to other standards or before standards were in place that were 3264 mostly affected and that those are the areas we want to concentrate 3265 on for future drainage improvement projects as well as other 3266 resiliency projects to make sure that those areas also are able 3267 to withstand the same type of flooding.

3268 Of greatest importance to that is the Clear Creek project 3269 which is a project sponsored by the Harris County Flood Control 3270 District and I believe that project has been submitted for federal 3271 funding to move forward after this event.

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3272 I am out of time and I want to say Gig'em my Mr. Olson. 3273 friend. Thank you. 3274 Mr. Epperson. Gig'em. 3275 Mr. Shimkus. The chairman now turns to another Texan, Mr. 3276 Green, for five minutes. 3277 Mr. Green. Well, I appreciate it and I married into the 3278 Aggie family. My son and our son-in-law and my two grandchildren 3279 now think they are going to be in the Corps Cadets. 3280 But be that as it may, Mr. Howe, in your testimony you know 3281 that some of the city of Houston's wastewater operations were 3282 overwhelmed during Harvey. 3283 Can you describe in detail on what locations? Was it mainly 3284 upstream, Buffalo Bayou? Because every creek and bayou I have 3285 in my area in east Harris County were out of their banks. But 3286 it was mostly the city of Houston and Buffalo Bayou that the 3287 wastewater treatment plants were overwhelmed? 3288 Yes, sir. It is my understanding on the west side Mr. Howe. 3289 of Houston the wastewater plant was flooded out. Part of that 3290 was due to controlled flooding out of the Addicks Reservoir, as 3291 you are familiar with that area over there. They currently --3292 Mr. Green. I don't represent it but I am familiar with it. 3293 Mr. Howe. Yes, I understand. The -- I understand from the

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160

3294 city of Houston water utility they are currently dealing with a 3295 wastewater line that is in Buffalo Bayou where the bayou is 3296 sloughing off continually.

They have a wastewater line that is on the side of that. It is an ongoing issue. Obviously, there needs to be a coordinated response on how that gets rebuilt and how their line gets reinforced or moved.

3301 So it is these ongoing issues. The water system operated 3302 just fine. They were able to put coffer dams around the northeast 3303 water filter galleries to keep the water system operating fine 3304 but wastewater, by its very nature, as Mr. Epperson mentioned, 3305 are built in lower level areas and they had some significant 3306 flooding, particularly in Houston's lift stations, too.

We have untold number of water districts outside 3307 Mr. Green. 3308 the city limits of Houston or Pasadena and I know they -- because they are built on the bayou close to where they're -- they treat 3309 3310 the effluent and it goes -- they have permits to go into the bayous. 3311 Do you have any idea on how many of those were also impacted? 3312 Mr. Howe. I don't have specific numbers. The difficulty 3313 for -- in our response during Hurricane Harvey, obviously, was 3314 that there was a delayed response. No one could do an assessment 3315 until the flood waters went down.

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161

Many of those operations were, obviously, shut down when the flooding started but it doesn't mean there wasn't a pollutant. I don't have specific numbers, though.

Okay. Well, I have the eastern part of the 3319 Mr. Green. 3320 county and, like I say, I could give you the watersheds from the 3321 bayous and -- but Buffalo Bayou and the shipping port of Houston 3322 actually runs right in the middle of our district, and whether 3323 it be Brays or Sims, Sims Bayou looked like it was the one that 3324 didn't flood as bad as Brays and on the north side I have Greens Bayou, Carpenters Bayou in channel view, Hunting Bayou and --3325 3326 I grew up in Houston. I am familiar with all Mr. Howe. 3327 these.

Mr. Green. All these -- and all of them were and these were multiple flooding experiences and we continue to work with the Corps of Engineers and, of course, our Harris County Flood Control District -- that a lot of our neighboring counties don't have flood control districts but in Harris County we pay property taxes to be able to have drainage ditches and, you know, take care of our bayous along with the partnership with the Corps.

3335 So it is a big challenge. Your -- Mr. Howe, in your testimony 3336 you said that the city of Houston was overwhelmed. What part of 3337 the city did they -- did they shut down the wastewater system or

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3338 did --3339 It is my understanding --Mr. Howe. 3340 -- what part of the city was impacted? Mr. Green. 3341 Mr. Howe. Excuse me. I am sorry. 3342 On the west side of Houston they did have one of their 3343 wastewater plants completely flooded out. It was out of service. 3344 They were advising people not to flush, those who were still in 3345 their residences, and they were -- they had the resources to get 3346 that plant back online in three or four days, once the water --3347 the water receded. 3348 You know, as you may be familiar, most of Houston's 3349 wastewater system is with forced mains or lift stations and they 3350 have a significant number of those and I know a number of those 3351 were flooded out. 3352 Houston proper was pretty resilient and a lot of that, much 3353 like some of the other cities around there. So I don't have 3354 specific details as to how they came back but they were very 3355 resilient on their own. 3356 Since Hurricane Ike they have built up a lot of resiliency 3357 within the city of Houston. 3358 Well, in Harris County also many years ago, Mr. Green. 3359 because you recognize we were subsiding, the city of Houston is **NEAL R. GROSS**

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163

3360 now almost totally on surface water and they have surface water 3361 rights.

3362 I know Pasadena I represent complains about having to pay 3363 high water rates for the city of Houston.

3364 So we have a central location for surface water so we don't 3365 continue to subside. Do you think there is -- should be an effort 3366 to try and create mega wastewater treatment facilities and partner 3367 with an untold number of water districts that we have and see how 3368 that would work?

Mr. Howe. You know, obviously, sir, that is a local decision. The first thing, when you said it, that popped in my head was the -- an example of the Trinity River Authority in the Dallas-Fort Worth area, which is a mega wastewater operation without regard to issue.

You know, most of Houston's water comes from the discharge in the Trinity River from TRA. That might be a possibility. I mean, there are any number of small package plants in the muds that you spoke of outside of the Houston area.

3378 There might be an effort to look at consolidating those in 3379 a system that would be more efficient. There are enormous costs 3380 involved in doing that and getting to that, you know, rerouting 3381 sewer lines and everything else. But it is those sort of options

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164

3382 I think everybody needs to look at.

Mr. Green. Well, and I am already over time, but with the amount of money we are going to have to do to redo those plants and also the houses and the businesses downstream who are in danger of, you know, because of that effluent being in their houses and their -- in their businesses.

3388

3389

So thank you, Mr. Chairman.

Mr. Shimkus. I thank my colleague.

I want to thank the colleagues who stayed and participated in the second panel. I personally really appreciate it. An observation is that these disasters that we are talking about in this event, if you noticed -- for the panelists, those of us who have been through them really kind of the same type of story.

I do think there is an opportunity for us to work collectively and look at the Stafford Act. This is multi-jurisdictional, though. This would be a long-term, five, six years trying to get a response.

3399 I am -- you know, I just -- I keep thinking about big piles 3400 of stuff and how do you separate them. I am a big trash energy 3401 guy. I would like to see more of that. We have some locally that 3402 I have toured.

3403

Buy-out programs -- we just had a flood five years ago.

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3404 People are just getting their checks now. So there is a lot of 3405 ways these things can be fixed so we do appreciate your testimony. 3406 I also want to tell my -- to the committee that we have five 3407 legislative days to submit opening statements. I forgot to do 3408 that at the beginning of this. 3409 I want to thank you all for being here and pursuant to 3410 committee rules, I remind members that they have 10 business days 3411 to submit additional questions for the record. 3412 If you get those, if you would reply we would appreciate it and I ask that you submit your responses within 10 business days 3413 3414 upon receipt of the questions. 3415 Of course, if your -- can't use your electric stuff because you are in a place where there is no electricity that might be 3416 3417 a challenge. But we do appreciate you being here. There is a 3418 lot of work for us to do. 3419 Thank you for your time and with that, I will adjourn the 3420 hearing. 3421 [Whereupon, at 12:56 p.m., the committee was adjourned.]

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